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TITULO	Diseño de un modelo de colaboración con proveedores para Distoyota.		
SUBTITULO			
AUTOR(ES) Apellidos, Nombres (Completos) del autor(es) del trabajo	**Erika Adriana Rodríguez Vanegas**		
	Diana Carolina Marín Ariza		
PALABRAS CLAVE (Mínimo 3 y máximo 6)	**proveedores**		**compartir**
	inventarios		**diagnóstico**
	colaboración		**visibilidad**
RESUMEN DEL CONTENIDO **(**Mínimo 80 máximo 120 palabras)	**Distoyota ha evidenciado que tiene oportunidades de mejora en su proceso de abastecimiento que le permitirían obtener mejoras a nivel interno que se reflejarían ante el cliente final. Por este motivo este trabajo de grado propone un modelo de colaboración con proveedores que le permita a la compañía obtener acuerdos favorables para mejorar los resultados del área de compras. Este modelo contempla una serie de pasos entre los que se destacan la generación y control de indicadores de gestión, así como el diseño y puesta en marcha de un acuerdo con sus tres principales proveedores, así como un modelo de seguimiento y control del mismo.**		

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DISEÑO DE UN MODELO DE COLABORACIÓN CON PROVEEDORES

PARA DISTOYOTA

DIANA CAROLINA MARÍN

ERIKA ADRIANA RODRÍGUEZ

UNIVERSIDAD DE LA SABANA

ESPECIACIÓN EN GERENCIA LOGÍSTICA

BOGOTÁ

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DIANA CAROLINA MARÍN

ERIKA ADRIANA RODRÍGUEZ

Trabajo de tesis para obtener el título de especialista en

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Asesor: Jairo Jarrin

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Bogotá, 26 de enero de 2013

Tabla de contenido

INTRODUCCIÓN

Este Proyecto busca presentar a la empresa DISTOYOTA un modelo de colaboración con proveedores CPFR (**Collaborative Planning, Forecasting & Replenishment**) que permita mejorar los tiempos de respuesta de las solicitudes de compra, reducir costos al momento de ejecutar las compras y generar un mayor conocimiento de sus proveedores como aliados estratégicos. En el transcurso de la especialización y de acuerdo con los temas aprendidos encontramos que existen varias herramientas que se pueden implementar en el proceso de abastecimiento de la compañía y que ayudarían a la mejora del mismo, generando así un valor agregado para DISTOYOTA, sus proveedores y la relación con los mismos.

CPFR es considerada como una práctica de negocios que reduce costos de inventarios mientras incrementa la rentabilidad de los productos a lo largo de la cadena de abastecimiento[1]

Hoy en día a las organizaciones les cuesta incrementar su rentabilidad a través del aumento en las ventas, por lo que los proyectos enfocados al aumento de la productividad o la reducción de costos son una oportunidad para lograr dicho incremento.

Particularmente el proyecto aquí presentado requiere de una baja inversión y sus resultados pueden verse en el corto plazo. Toyota se ha caracterizado por desarrollar proyectos de mejoramiento y desarrollar a lo largo de su historia una cultura de calidad lo que representa un espacio apto para el desarrollo de este tipo de iniciativas.

[1] Relaciones de Colaboración como Estrategia de Negocio, IACO

PARTE I: DEFINICIÓN DEL PROBLEMA

2. PROBLEMA

2.1 DESCRIPCIÓN DEL PROBLEMA

Actualmente Distoyota no cuenta con un plan de colaboración con sus proveedores, debido a diversas razones entre las que destacan que la comunicación interna entre las áreas de la compañía no es la adecuada, además de que no se cuenta con un cronograma de pedidos, lo que lleva a que no exista una comunicación de los pronósticos y plan de inventarios de la compañía para sus proveedores. Por otro lado el departamento de compras está enfocado en trabajos operativos que no le permite concentrarse en tareas estratégicas y tácticas, además de contar con una planta limitada de personal en el área que conlleva a que el equipo existente se encuentre con sobrecargas de trabajo y no tenga tiempo suficiente para realizar un análisis adecuado de proveedores. Además no se ha estructurado un proceso eficaz de evaluación y revaluación de proveedores con retroalimentación de los mismos que permita incentivar una cultura de mejoramiento continuo en las relaciones entre Distoyota y sus proveedores.

2.2 PLANTEAMIENTO DEL PROBLEMA

Teniendo en cuenta lo anterior la compañía puede tener problemas de desabastecimiento de mercancía importante, o realizar compras innecesarias de productos sin generar valor al proceso de compras ni a la compañía, aumentando los costos de operación y afectando negativamente el nivel de servicio a los clientes. Por otro lado se están presentando bajos niveles de productividad, lo que ha llevado a que el área no obtenga ahorros para Distoyota así como tener sus clientes internos insatisfechos. Además de que no se cuenta con un conocimiento a profundidad de sus proveedores y por ende no existen relaciones de confianza con los mismos, por lo que realizan entregas fuera de los plazos y sin las condiciones de calidad requeridas por la compañía debido a que en la actualidad no hay una relación gana gana que favorezca la operación de las partes.

2.3 ÁRBOL DEL PROBLEMA

Ilustración 1: Árbol del problema

3. OBJETIVOS

3.1 OBJETIVO GENERAL

Aumentar la eficiencia del proceso de compras a fin de incrementar los niveles de satisfacción del cliente interno, obteniendo mejores precios de los bienes y servicios adquiridos para lograr una reducción de costos tanto operativos como de adquisición, apoyados en un plan de colaboración con proveedores.

3.2 OBJETIVOS ESPECÍFICOS

- Realizar un diagnóstico del estado actual del proceso de compras de DISTOYOTA que identifique oportunidades, fortalezas, debilidades y amenazas.
- Diseñar un sistema de evaluación inicial y periódica de proveedores que se ajuste a los requerimientos de la compañía y que permita medir la capacidad de los mismos para ofrecer bienes y servicios.
- Diseñar un modelo de colaboración con proveedores para DISTOYOTA, que incluya:

    - Planeación y acuerdos participativos.
    - Visibilidad de la demanda, pronósticos de pedidos y datos promocionales de DISTOYOTA, para poder anticiparse y satisfacer así la demanda futura.
    - Fijación conjunta de metas, alcance de la colaboración y asignación de roles, responsabilidades y puntos de control.

PARTE II: DESCRIPCIÓN DE LA EMPRESA

4. MARCO DE REFERENCIA

4.1 MARCO TEORICO

- http://www.12manage.com/methods_CPFR_es.html
- Libro – Voluntary Interindustry Commerce Standards (VICS): CPFR: An aoverview, 2004 – CPFR: Una descripción, 2004.
- Planeación de Negocios Integrados: Un camino para enlazar S&OP y CPFR – Revista de Previsión de Negocios, Invierno 2010 – 2011.
- Title: P&G CPFR. Delivered by: Jeff LeMa. Description: Short presentation details Proctor & Gamble's position, status and rious CPFR efforts, the sharing of how CPFR is being used to enable: Gillette integration, the design of a consumer driven supply network (CDSN) supply network, managing recent changes in customer inventory.
- Title: P&G CPFR. Title: Scaling Collaboration. Delivered by: Andrew White, Research Director, SCM for Gartner, Inc. Description: Document contains several graphs and discussions of the following: What is the status of CPFR? How is CPFR viewed by end users? What impacts the adoption of CPFR?
- Title: Delivered by: Fred Baumann, JDA Software and Matt Johnson, Retek, Inc. Description: Presentation covers Process Summary and Business Case, Case Study: Walmart Stores, Proposed Industry Process Guidelines

(Retailer-Managed Replenishment and Vendor-Managed Replenishment), Business Process Steps and Message Interchange Scenarios.

- Title: CMC CPFR Pilot Case Introduction. Delivered by: Phyllis Chang, CMC Magnetics Corporation. Description: Document details CMC involvement with CPFR, including CMC Implement Roadmap (Business Process Design Roadmap and System Development Roadmap); Finding Obstacles and Solutions (Business Process Issue and Technology Lesson Development Issue).

4.2 MARCO CONCEPTUAL

Distoyota siempre ha sido el principal importador y distribuidor en Colombia de la marca Toyota, en 1959 llegaron los primeros vehículos Toyota a Colombia, exactamente cinco años después que Yukio Tanaka, un ejecutivo de la firma llaga a Bogotá para extender las exportaciones que había iniciado la empresa Japonesa.

Ilustración 2: Distoyota 45 años

La marca Toyota tiene en Colombia una imagen de fortaleza, calidad, tecnología insuperable, producto de su presencia ininterrumpida desde septiembre de 1967, cuando se importaron los primeros camperos Toyota Land Cruiser y se constituyó como concesionario para Colombia de Toyota Motor Corporation, con el nombre de Distribuidora Toyota de Colombia Ltda.

En julio de 1970, la sociedad decidió cambiar en nombre a Distribuidora Toyota Ltda, con el fin de importar, representar y distribuir vehículos y montacargas en Colombia, sin embargo por tratarse de vehículos importados, no se encontraban al alcance de una inmensa mayoría.

Esta barrera comienza a ceder cuando en 1987 el Gobierno Nacional autoriza a los tres ensambladores nacionales para fabricar camperos, en el año de 1989 Sofasa firmó un convenio de intención con Toyota Motor Corporation para iniciar estudios de factibilidad. Toyota Motor Corporation compro el 23% de las acciones de Sofasa, de las cuales el 7.5 son de Mitsui y Cia., un Holding Financiero de

Toyota Motor Corporation. Los acuerdos finales quedaron firmados el 17 de mayo de 1990, estos acuerdos son de licencia y asistencia técnica para Sofasa.

En el año 1992 se realiza el lanzamiento de los primeros Toyotas ensamblados en Colombia con los camperos Land Cruiser y un año más tarde con las camionetas Hilux.

En el país ruedan más de 60.000 vehículos importados por Distoyota y más de 50.000 vehículos ensamblados por Sofasa. Contamos con talles propios para prestar el soporte técnico que el cliente necesita.

4.2.1 Misión

Nos sentimos orgullosos de importar y distribuir vehículos, equipos industriales, repuestos TOYOTA, brindar un servicio con experiencias memorables y desarrollar el talento humano enmarcados en los principios de confiabilidad, respeto, cumplimiento, lealtad y armonía.

4.2.2 Visión

Ser reconocido como el distribuidor de Toyota en la región por su cultura orientada hacia el servicio, por el crecimiento y expansión en el mercado; por ser un lugar excepcional de trabajo, y por generar valor sostenible para los accionistas y la sociedad

Ilustración 3: Misión y Visión

4.2.3 Política de calidad

Contando con un equipo humano capacitado, responsable, motivado, comprometido y unido, adoptamos una mejora continua en el vivir diario de nuestro trabajo, para desarrolla la importación, distribución y comercialización de vehículos automotores e industriales y servicios posventa, de tal forma que se logre obtener una confianza de nuestros clientes, con la satisfacción de sus necesidades y expectativas, para que hagan parte de nuestra gran familia Distoyota.

4.2.4 Pilares estratégicos

- Cultura de servicio
- Fidelización de los clientes
- Lugar excepcional de trabajo
- Crecimiento y expansión de mercado
- Generación de valor para los accionistas

4.2.5 Requisitos de cliente

- Buena atención
- Asesoría adecuada
- Disponibilidad
- Precios competitivos
- Calidad y profesionalismo
- Cumplimiento
- Respaldo
- Seguimiento

Ilustración 4: Toyota

PARTE III: DIAGNÓSTICO

5. DIAGNÓSTICO DE LA SITUACIÓN ACTUAL DEL PROCESO DE COMPRAS

Con el objetivo de identificar las debilidades, oportunidades, fortalezas y amenazas del proceso de compras actual de Distoyota, se realizó un proceso de diagnóstico cuyo objetivo es identificar la situación actual del área de compras en relación con sus proveedores. Para esto, se llevó a cabo el siguiente proceso

Figura 1

Se elaboró el listado de proveedores que participarían en el proceso basados en los volúmenes de compra anuales que realiza Distoyota. A este listado se aplicó un análisis de paretto a fin de identificar los proveedores más representativos en términos de volumen de compra. El análisis efectuado dio como resultado un listado de 20 proveedores que representan el 80% del volumen de compras realizadas.

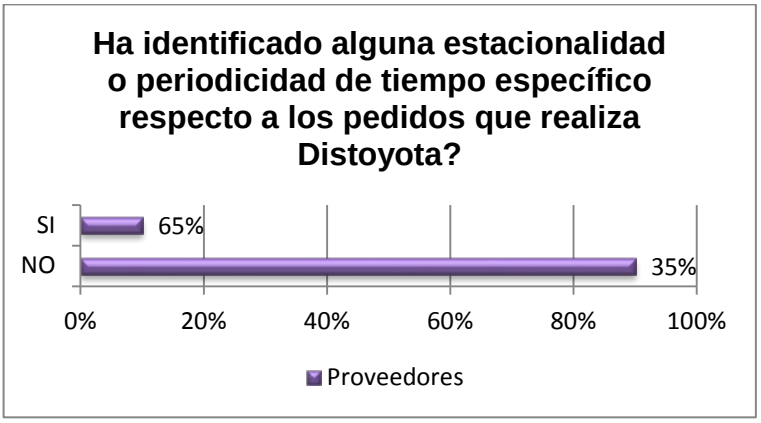
Posteriormente se diseñó una encuesta dirigida a Gerentes Generales, Gerentes Comerciales, Jefes de Distribución, Asesores Comerciales, Jefes de Abastecimiento y Jefe de Producción, enfocada principalmente a obtener la percepción del proveedor sobre la relación comercial con Distoyota, determinar el nivel de conocimiento o aplicación de procesos colaborativos con clientes y los métodos empleados por el proveedor para llevar a cabo procesos de abastecimiento, entre otros. *Ver anexo 1: Encuesta situación actual.*

5.1 RESULTADOS DE LA ENCUESTA

- De los 7 macro procesos logísticos, los más relevantes para los Proveedores fueron: almacenaje, transporte y stock.

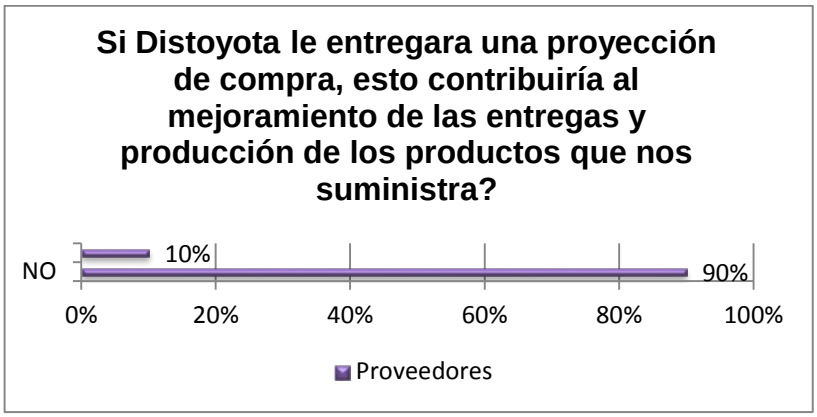
- Los proveedores consideran que el costo del proceso logístico dentro del precio de venta de su producto representa en promedio un 14%.

- 7 de los encuestados es decir un 35% perciben que existe estacionalidad, identificando los meses de junio, noviembre y diciembre como estacionales. Los otros trece encuestados, es decir un 65% no perciben estacionalidad.



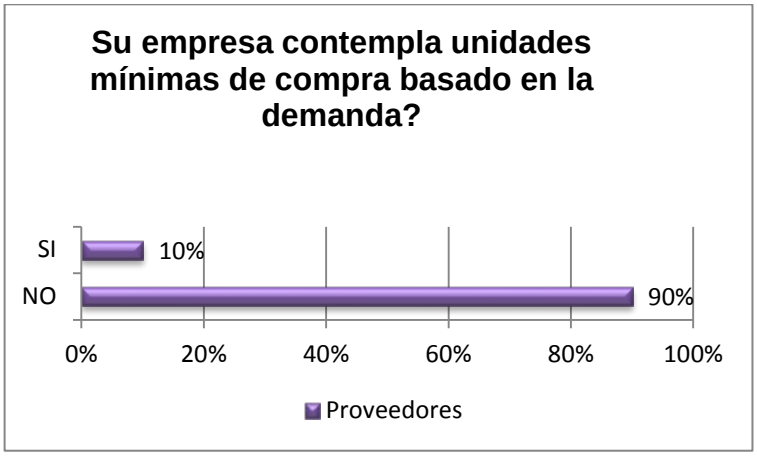
Grafica 1

- 17 de los encuestados, es decir un 85% de los proveedores considera que si se le entregada una proyección de compras de Distoyota esta contribuiría al mejoramiento de su planeación de demanda. Los tres restantes consideran que no contribuiría a su proceso de planeación.



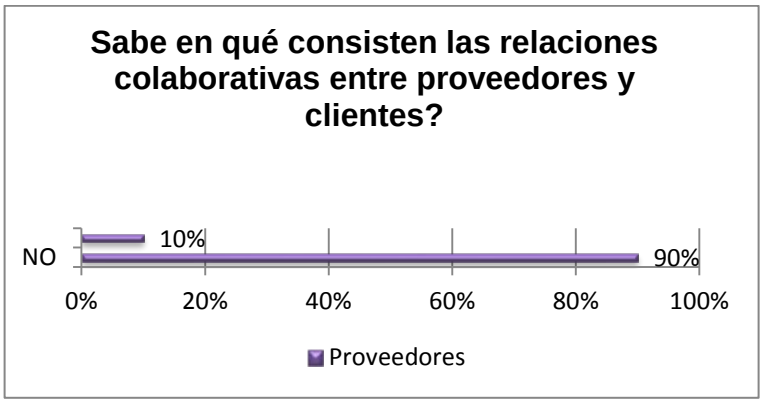
Grafica 2

- El 60% de los proveedores encuestados podría mejorar su precio de venta si se manejaran cantidades mínimas de compra, especialmente en los productos que deben ser despachados a otras ciudades.



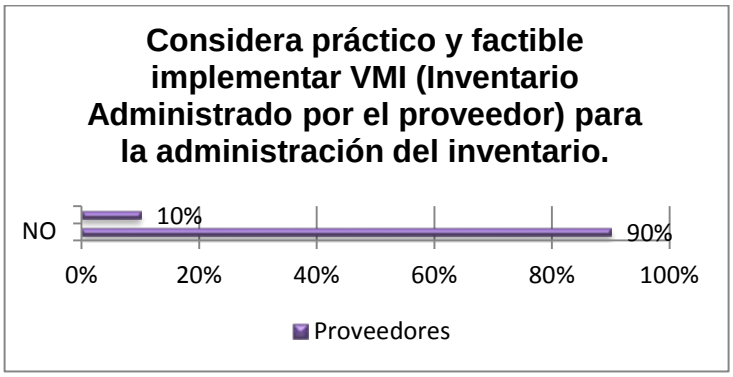
Grafica 3

- El 60% de los proveedores encuestados no sabe ni conoce en qué consisten los procesos de colaboración entre proveedor y cliente.



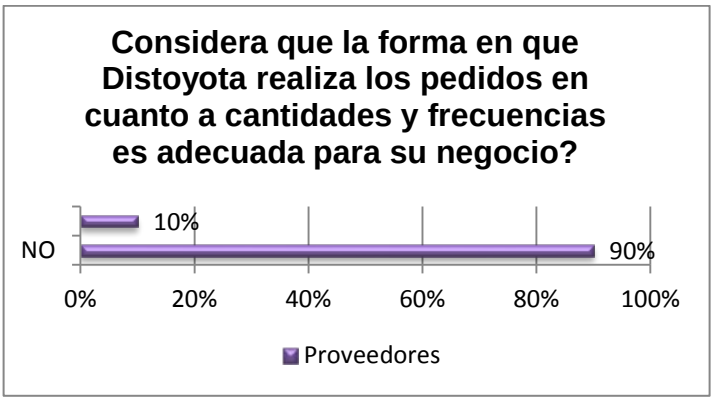
Grafica 4

- El 60% de los proveedores considera favorable la implementación del modelo VMI, el 40% restante manifiesta que este modelo no aplicaría para su tipo de negocio.



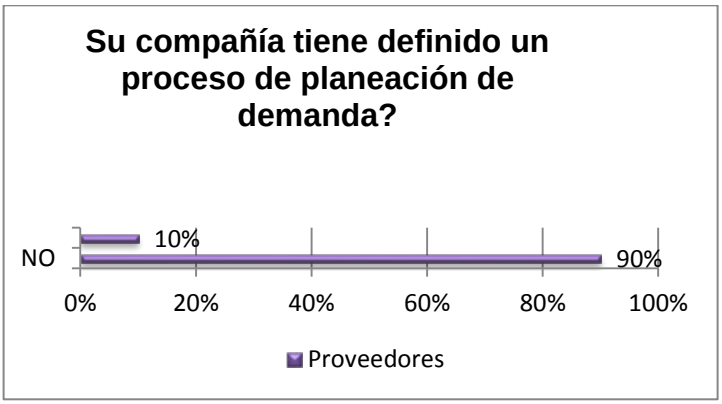
Grafica 5

- El 70% de los proveedores de Distoyota opina que las cantidades y frecuencias con que se realizan los pedidos no son favorables para su negocio.



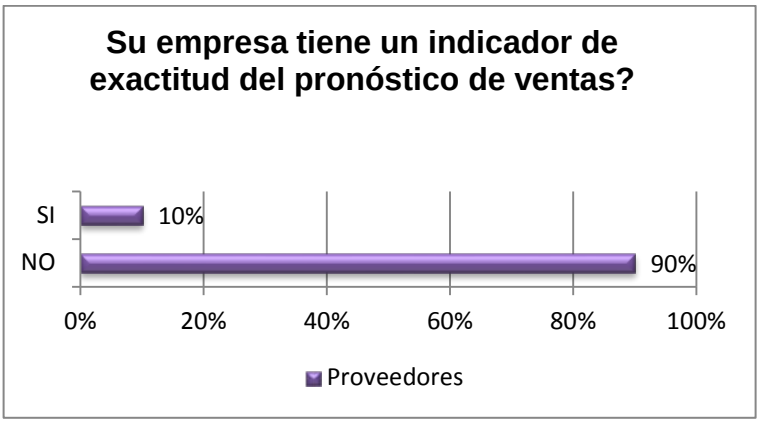
Grafica 6

- 14 de los proveedores encuestados, es decir el 70% responde que cuenta con un proceso de planeación de demanda y que lo hacen basados en históricos de compras.



Grafica 7

- El 90% de los encuestados informan que no cuentan con un indicador que les permita conocer el cumplimiento del pronóstico de ventas.



Grafica 8

5.2 MATRIZ DOFA

Para la construcción de la Matriz DOFA se analizaron los factores interno y externos más relevantes para el desarrollo del proyecto. Para la identificación de las debilidades y fortalezas se analizaron los datos obtenidos en las encuestas y entrevistas realizadas a los principales proveedores. Para el análisis de las oportunidades y amenazas se evaluó información de la industria automotriz y de la aplicación de CPFR en otras industrias mediante búsqueda de información secundaria. Con la construcción de la matriz DOFA se busca potencializar las fortalezas, disminuir las debilidades, minimizar las amenazas y aprovechar las oportunidades a través de la generación de estrategias acordes con el alcance del Proyecto

DEBILIDADES	OPORTUNIDADES
- El proceso de pedidos de Distoyota no es favorable en cuanto a cantidades y frecuencias de acuerdo a los comentarios realizados por los proveedores. - No se cuenta con un proceso constante de retroalimentación con los proveedores que permita identificar oportunidades de mejora al proceso. - No se tiene identificada la estacionalidad de los accesorios e insumos. - No se tiene negociaciones a largo plazo que permitan obtener mejores precios de insumos que tiene alta rotación. - No se tiene establecido un cronograma de pedidos. - El 70% de los proveedores encuetados no sabe en que consiste un proceso de colaboración, esto hace que sea difícil la implementación exitosa del Proyecto.	- Las cifras del crecimiento automotriz son positivas, esto hace favorable la implementación del proyecto. - El poder de negociación de los proveedores es bajo - El desarrollo de la infraestructura vial para los próximos años puede reducir los costos logísticos para los proveedores.
FORTALEZAS	**AMENAZAS**
- Las relaciones entre Distoyota y sus proveedores son buenas, esto permite que los proveedores estén dispuestos a realizar ajustes a su proceso para fortalecer la relaciones gana gana. - Se tiene una filosofía como empresa de mejoramiento continuo lo cual hace que se facilite el desarrollo de proyecto. - El proyecto requiere un baja inversión en cuanto a presupuesto - Los beneficios del proyecto se materializan a mediano plazo.	- Alta rivalidad de competidores que buscan diferenciación de producto a través de accesorios. - Alta costo de cambio de proveedores. - Alta contribución del proveedor a la calidad del producto.

Tabla 1: Análisis DOFA

5.3 CONCLUSIÓN DEL DIAGNÓSTICO

De acuerdo con el diagnóstico realizado el proyecto es viable en términos del potencial de colaboración de los proveedores y por el poder de negociación que tiene Distoyota sobre ellos.

Por otro lado, gracias a que el proyecto requiere de una baja inversión y se cuenta con una cultura orientada hacia el mejoramiento es factible contar con el apoyo y compromiso del grupo directivo y la línea operativa.

Igualmente, se encontró que de acuerdo a la percepción de los proveedores, los productos que les compra Distoyota, presentan estacionalidad; no con una tendencia tan marcada, pero se genera por condiciones de mercado. Éstas pueden influir en la estadística de compra de accesorios Vs. los vehículos y modelos.

PARTE IV: INDICADORES

6. INDICADORES DE CUMPLIMIENTO PARA PROVEEDORES, PLAN ÓRDENES PERFECTAS

Ilustración 5: Indicadores

Se recomienda implementar los siguientes indicadores para evaluar el paretto de proveedores. Los indicadores se deberán generar mensualmente y realizar retroalimentación bimestral para el proveedor. Ésta retroalimentación se debe dar en una reunión presencial en donde las dos partes participen activamente, deben asistir personas con un nivel alto que puedan tomar decisiones en el proceso logístico por parte del proveedor, en caso de que la persona con la cual se está liderando el proceso, no pueda asistir, se optará por aplazar la reunión. En estas reuniones bimestrales se deben ir ajustando las metas, primero habrá un mes de medición de los indicadores de cada proveedor y dependiendo del resultado a cada proveedor se le establecerá un meta y un tiempo para cumplir, esto de acuerdo con el comportamiento y avance que se logre con este proceso, pero más importante aún es identificar cuáles pueden ser las posibles causas de un incumplimiento o un bajo rendimiento, estas causas deben ser analizadas y establecer las acciones correctivas y de mejora correspondientes en el transcurso

del proceso, en cada reunión se hará un acta en donde quedarán consignados los compromisos adquiridos por las partes

Con los indicadores que se establezcan se medirá el desempeño del proceso, teniendo en cuenta, no sólo el cumplimiento o no de la meta establecida, si no su tendencia y análisis de las desviaciones, con lo que se podrán plantear soluciones puntuales y un plan de acción coherente con los resultados obtenidos.

Las acciones establecidas, a partir de los resultados de los indicadores, deben estar orientadas a satisfacer las expectativas del cliente, mediante la reducción del tiempo de entrega y la optimización del servicio prestado, entre otros.

6.1 INDICADORES

Nombre del Indicador	Objetivo	Fórmula	Tendencia Objetivo
Entregas completas	Mide la cantidad de pedidos entregados/recibidos completos. Completo se refiere a exactamente las unidades pedidas.	EC= $\frac{No.pedidos\ entregados\ /\ recibidos\ completos}{Total\ de\ pedidos\ solicitados\ para\ el\ periodo\ x}$	
Entregas a tiempo	Mide la capacidad que tiene una compañía para realizar la entrega de pedidos en la fecha, hora / período de tiempo y lugar pactado con el cliente	ET= $\frac{No.pedidos\ entregados\ a\ tiempo\ en\ un\ periodo\ x}{Total\ de\ pedidos\ solicitados\ en\ un\ periodo\ x}$	
Documentación sin problemas	Mide la cantidad de facturas emitidas / recibidas sin inconsistencias: de datos básicos, de precios, de cantidades, de descuentos, de recargos, de impuestos, etc.	DSP= $\frac{No.de\ facturas\ generadas/recibidas\ \text{sin}\ problema\ en\ el\ periodo\ x}{Total\ de\ facuras\ generadas/recibidas\ en\ el\ periodo\ x}$	
Pedido perfecto	Mide la calidad total de los pedidos entregados / recibidos por una empresa, un pedido se considera perfecto cuando: es entregado a tiempo, completo, la facturación no presenta ningún error y la calidad de los productos es la adecuada.	PP = $\frac{No.de\ pedidos\ entregados/recibidos\ perfectos\ en\ el\ periodo\ x}{Total\ de\ pedidos\ entregados\ /recibidos\ en\ el\ periodo\ x}$	

Tabla 2: Cuadro indicadores

Se han identificado una serie de motivos por los cuales es posible que se presenten indicadores por debajo de la meta.

- Entregas completas:

- Pedidos extemporáneos: Si el departamento de compras de Distoyota no realiza los pedidos dentro de los plazos que se han establecido en los acuerdos con los proveedores, es posible que las entregas no puedan ser realizadas en su totalidad.

- Picos en la demanda: Si el pronóstico de ventas y de pedidos no se realiza de manera adecuada y se presentan picos de demanda, es posible que el proveedor no pueda cumplir con una entrega completa.

- Back Order de los fabricantes: Debido a que uno de los proveedores es distribuidor, Distoyota puede verse afectado por BO de los fabricantes que surten al distribuidor.

- Entregas a tiempo:

- Pedidos extemporáneos: De igual manera que para el caso de las entregas completas, si Distoyota no cumple con los plazos para la realización de pedidos, es posible que el proveedor entregue fuera de las fechas y horas requeridas por Distoyota.

- Inconvenientes logísticos del proveedor: Pueden presentarse problemas externos de movilidad, de disponibilidad de vehículos, entre otros que impidan al proveedor entregar en el tiempo establecido por Distoyota.

- Documentación sin problemas:

- Cierres de facturación: El proveedor deberá reportar oportunamente los cierres de facturación al final de cada mes, para que Distoyota pueda planear sus pedidos y el proveedor cuente con tiempo suficiente para entregar y facturar dentro de los plazos establecidos en el indicador.

- Variación de precios del proveedor: Es necesario que los proveedores reporten cualquier modificación en los precios de venta a Distoyota antes de despachar y facturar para que en el momento de la entrega de la documentación no se presenten inconsistencias entre la factura y la orden de compra.

- Entregas perfectas:

- Error en la orden de compra: Los auxiliares del departamento de compras de Distoyota sólo harán llegar al proveedor la orden de compra previa autorización de la jefatura, con el fin de evitar que el proveedor realice un despacho que esté sujeto a modificaciones.

- Acuerdos de precios por periodos determinados: Distoyota hará acuerdos de precios que eviten la variación constante de los mismos y posterior ajuste en las órdenes de compra y la facturación.

- Ingreso extemporáneo al sistema de inventarios de Distoyota: El Almacén deberá ingresar las los pedidos al inventario en el mismo día de su recepción a fin de tener información confiable en el indicador, ya que de lo contrario se calificará como no cumplida una orden de compra que ha sido entregada dentro de los plazos establecidos.

- Falencias en la comunicación: Previa la implementación de los indicadores Distoyota comunicará formalmente a todos sus proveedores la metodología de evaluación a fin de evitar que la falta de información ocasiones resultados erróneos en los indicadores.

6.2 CUADRO DE MANDO

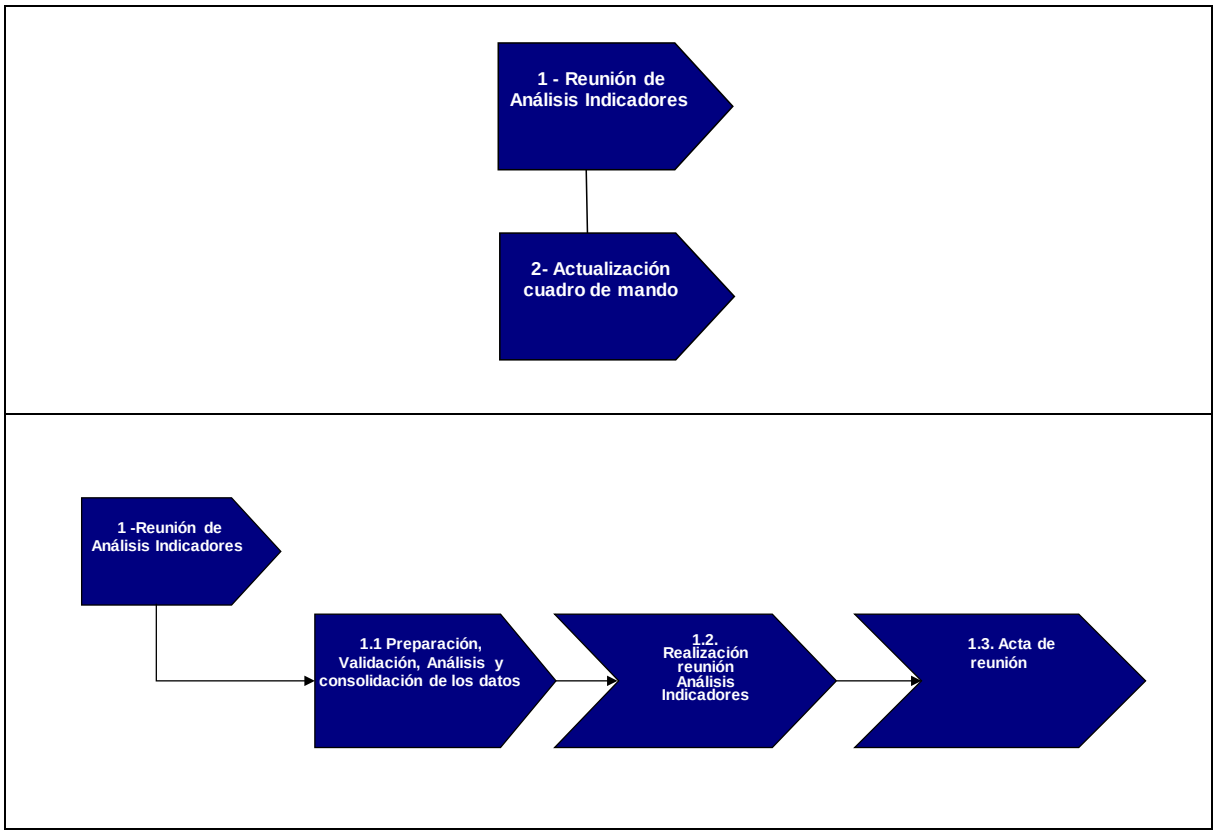
DEFINICIÓN CUADRO DE MANDO

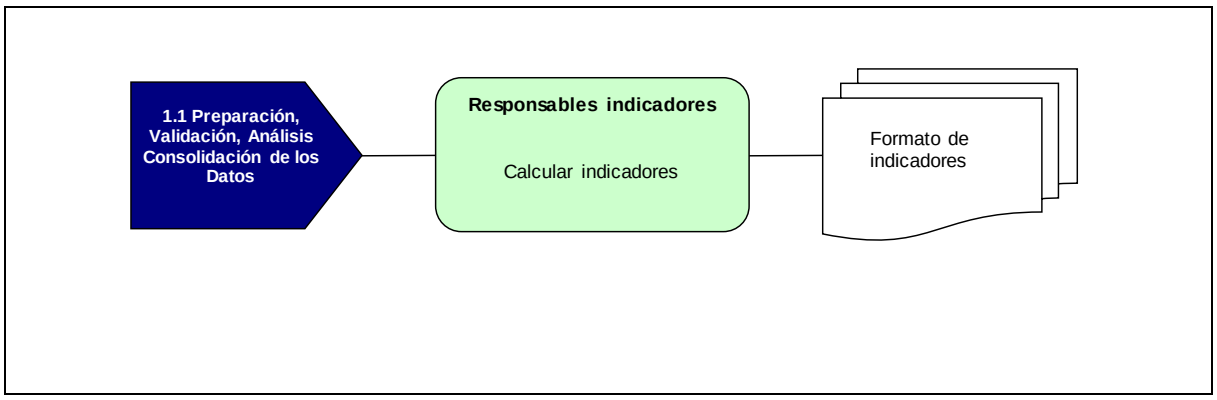
Determinación de Indicadores y Metas

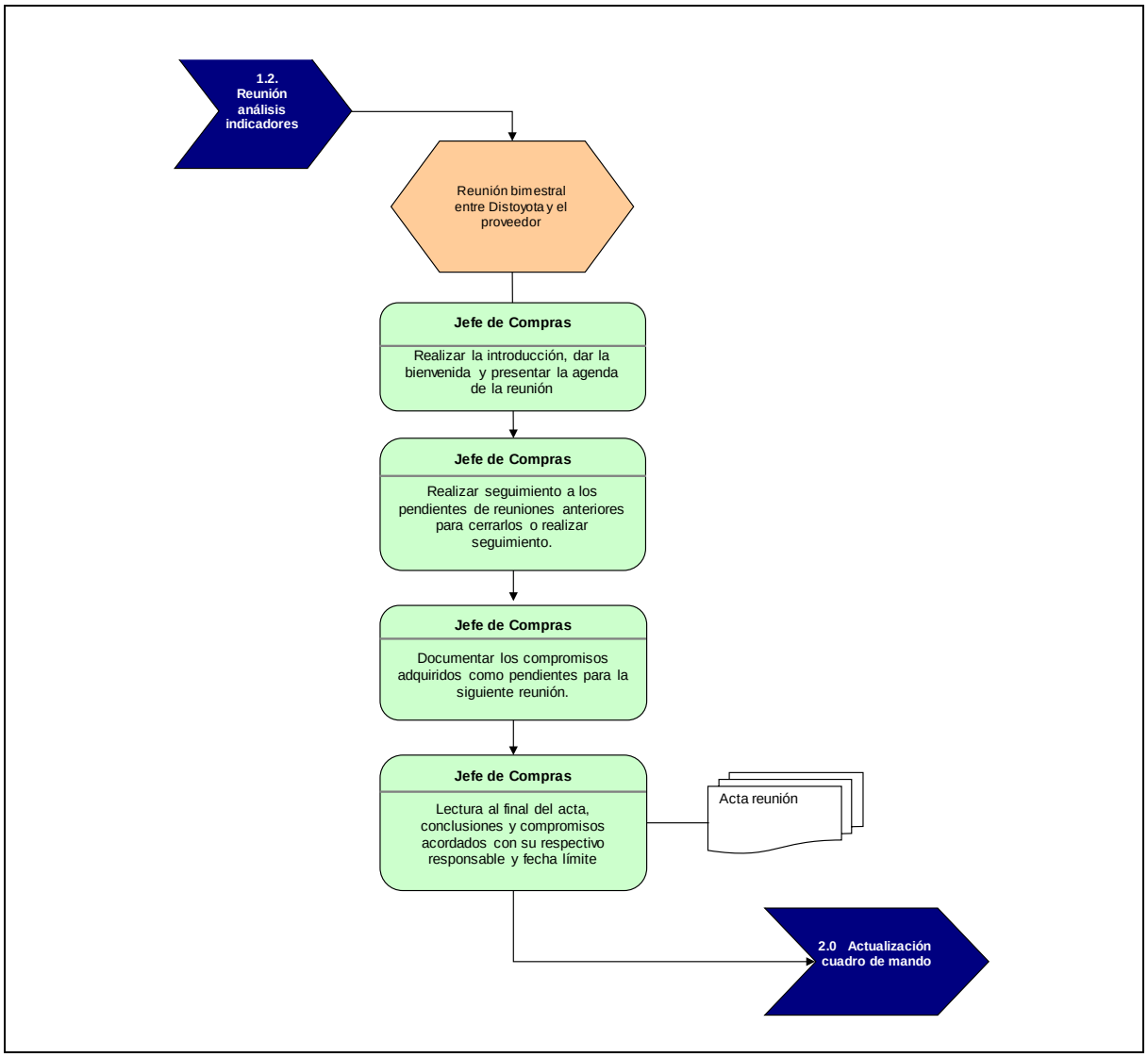
Indicadores	Inter-preta-ción indic.	Pon-dera-ción	Responsables		Periodi-cidad	Unidad de medida	Valor Inicial	Metas			Real			Máx. Desvío	Semáforo		
Nombre			Ejecución	Seguimiento				Año 1	Año 2	Año 3	Año 1	Año 2	Año 3		Año 1	Año 2	Año 2
Aprovisionamiento																	
Entregas completas	> es mejor	25%	Compras	GNR	mensual	%									FALSO	●	FALSO	●	FALSO	●
Entregas a tiempo	> es mejor	25%	Compras	GNR	mensual	%									FALSO	●	FALSO	●	FALSO	●
Documentación sin problemas	> es mejor	20%	Compras	GNR	mensual	%									FALSO	●	FALSO	●	FALSO	●
Pedido perfecto	> es mejor	30%	Compras	GNR	mensual	%									FALSO	●	FALSO	●	FALSO	●

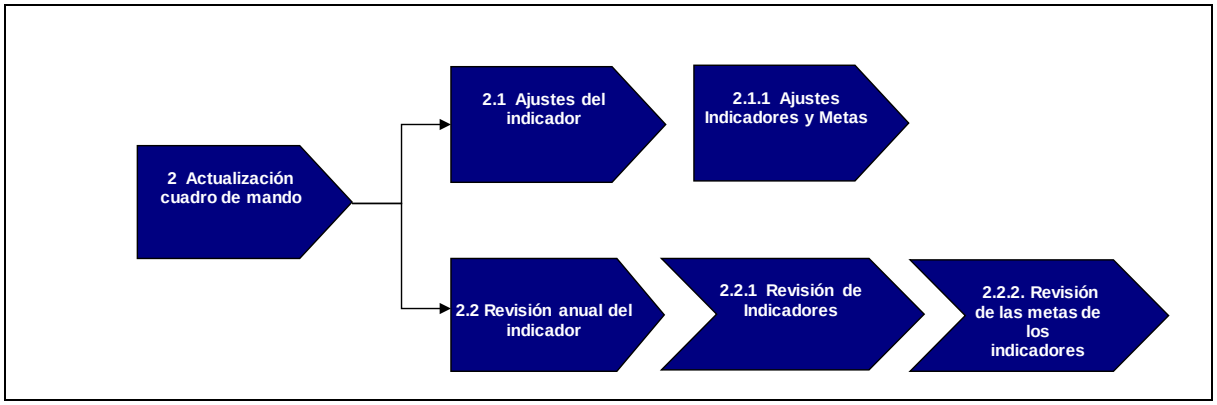
Tabla 3: Cuadro de mando

6.3 METODOLOGÍA




1.1 Preparación, Validación, Análisis Consolidación de los Datos
Responsables indicadores
Calcular indicadores
Formato de indicadores


1.2. Reunión análisis indicadores
Reunión bimestral entre Distoyota y el proveedor
Jefe de Compras
Realizar la introducción, dar la bienvenida y presentar la agenda de la reunión
Jefe de Compras
Realizar seguimiento a los pendientes de reuniones anteriores para cerrarlos o realizar seguimiento.
Jefe de Compras
Documentar los compromisos adquiridos como pendientes para la siguiente reunión.
Jefe de Compras
Lectura al final del acta, conclusiones y compromisos acordados con su respectivo responsable y fecha límite
Acta reunión
2.0 Actualización cuadro de mando



6.4 AJUSTES PREVIOS A LA IMPLEMENTACIÓN

Ilustración 6: Ajustes

Como parte del diagnóstico del proceso de compras de Distoyota, se hizo un análisis de los procesos que impactarían la medición de los indicadores establecidos y se encontró que se debe realizar una serie de ajustes previos a la implementación para que la medición obtenida sea real. Dichos ajustes son:

- Identificar los diferentes tipos de producto y tiempos de entrega para cada uno de ellos teniendo en cuenta si son MTO (Make to Order) o MTS (Make to

Stock), para así programar las entregas con tiempos reales y cumplibles por el proveedor.

- El Centro Partista de Distribución (almacén principal) y los almacenes de las sucursales deberán ingresar al sistema de gestión de inventarios todos los productos recibidos en el mismo día en que se realiza la recepción.
- Los almacenes deberán recibir mercancía sólo si el proveedor cumple con los requisitos de documentación exigida por Distoyota, de lo contrario el proveedor será devuelto para que realice la entrega sólo cuando reúna la documentación.
- Se sugiere que el sistema de gestión permita la generación de un reporte que contenga la información requerida para la realización de los indicadores de manera más ágil. *Para esto se necesita realizar un desarrollo en el módulo.*

PARTE V: MODELO DE COLABORACIÓN

7. MODELO DE COLABORACIÓN CON PROVEEDORES PARA DISTOYOTA

Ilustración 6: Toyota

El modelo CPFR requiere de un trabajo conjunto de planeación, pronósticos y reabastecimiento que exige varios cambios organizacionales para que la transición sea exitosa. Entre estos cambios se pueden encontrar los ajustes en la estructura, valores y procesos de la organización así como un cambio en el enfoque de la cadena de valor, la planeación al consumidor y por último el vuelco del concepto de relaciones ganar / perder a relaciones ganar /ganar.

Las grandes compañías que tienen experiencias exitosas en la implantación de este tipo de modelo, lo han hecho de manera gradual iniciando con pocos proveedores o incluso sólo con uno de ellos y con un portafolio de referencias reducidas que impactan su costo de inventario. Teniendo en cuenta esto, Distoyota iniciará el proceso con tres proveedores que se relacionan a continuación:

- Trimleather: Fabricante que abastece a Distoyota la tapicería en cuero. Con tres referencias de gran rotación e importancia para las compañías.

- Incampi: Fabricante que abastece a Distoyota los tapetes. Con seis referencias de rotación constante y que no pueden faltar para el alistamiento de los vehículos.

- El punto del color: Distribuidor que provee a Distoyota el 95% de los insumos requeridos en el taller para procesos de reparación de vehículos. Con este proveedor se trabajará en las 50 referencias de mayor rotación, que representan el 20% en volumen de compra.

Para el desarrollo de un modelo de colaboración entre Distoyota y sus proveedores, y con base en el documento Relaciones de Colaboración como Estrategia de Negocio de LOGyCA se seguirán los pasos que se enumeran a continuación:

- Desarrollar un acuerdo inicio – Fin.
- Crear un plan conjunto de negocios.
- Crear pronósticos de ventas.
- Identificar excepciones al pronóstico de ventas.
- Resolver / Colaborar sobre los ítems de excepción.
- Crear Pronóstico de pedidos.
- Identificar Excepciones a los pronósticos de pedidos.
- Resolver / Colaborar sobre los ítems de excepción.

- **Paso 1: Desarrollar un acuerdo inicio – fin:**

Es necesario desarrollar un acuerdo claro en donde Distoyota y los tres proveedores con los que se va a iniciar el modelo CPFR definan los objetivos de la relación de colaboración, realicen los respectivos acuerdos de confidencialidad y establezcan los recursos a destinar en el proyecto para cada una de las partes.

El acuerdo debe contar con guías detalladas de cada proceso, reglas a cumplir por las partes, expectativas de cada uno, acciones a llevar a cabo y los recursos requeridos para el buen desarrollo del proyecto.

Se deben tener en cuenta los siguientes aspectos que dentro del acuerdo:

- Definición clara del proceso, que incluya metas y objetivos. Distoyota y los proveedores deben conocer cuáles son las oportunidades que se quieren aprovechar, realizar indicadores de medición y establecer la periodicidad de su seguimiento. También se debe dimensionar el impacto del proyecto y establecer una política para el manejo de las excepciones.
- Oportunidades para maximizar beneficios: Las partes deben dimensionar cuáles de las oportunidades del entorno pueden aprovecharse buscando obtener mayores beneficios como resultado del acuerdo.

- Compromisos para alcanzar altos niveles de desempeño. Las partes deben estar comprometidas en la búsqueda, seguimiento y evaluación constante del acuerdo, que los lleve a alcanzar niveles de desempeño más altos a los que se tienen sin el modelo CPFR.
- Voluntad de intercambiar conocimiento. Desde el establecimiento del acuerdo, tanto Distoyota como los tres proveedores que harán parte del mismo, deben tener la disposición a intercambiar conocimiento entre las partes, buscando así el crecimiento del proyecto y fortaleciendo la relación ganar / ganar.
- Competencias, recursos y sistemas. Para el buen desenvolvimiento de un modelo como el CPFR es necesario definir desde la etapa inicial qué personal estará involucrado en el proyecto, qué competencias deben tener, qué recursos adicionales se requieren, así como cómo se apoyarán en los sistemas de información. Distoyota y los proveedores deben tener en cuenta que las compañías que ya han tenido éxito en procesos de relaciones colaborativas, se han apoyado en sistemas de información compartida que inicialmente

representan una inversión alta, pero que en todos los casos se ha recuperado rápidamente.

- Puntos de colaboración y áreas responsables. Se establece una delimitación de los puntos en donde existirá colaboración y de las áreas que estarán involucradas. En este aspecto se hace necesaria la revisión de la estructura y de las capacidades de cada uno de los actores.
- Necesidad de intercambio de información. Este es uno de los pilares básicos de las relaciones colaborativas basadas en la confianza, por lo que es fundamental establecer el tipo de información que se va a compartir y la periodicidad del intercambio.
- Compromisos de servicios y pedidos. Cada proveedor debe establecer con claridad cómo será su modelo de atención para Distoyota teniendo en cuenta las ventanas de producción, para que el proveedor con la visibilidad que tiene de las necesidades de Distoyota sepa exactamente en qué momento el pronóstico se convierte en pedido, sin necesidad de esperar una orden de compra.
- Cómo resolver desacuerdos CPFR. Las partes deben dejar dentro del acuerdo los mecanismos que les permitirán resolver los desacuerdos que se presenten en el desarrollo del modelo.
- Ciclo de revisión del acuerdo. Estableciendo periodicidad de las revisiones y evaluaciones al cumplimiento del acuerdo.

Como resultado de este primer paso, Distoyota y sus tres proveedores contarán con un documento final que servirá como guía de trabajo para todos los participantes. Se debe resaltar que el acuerdo puede ser actualizado cuando sea necesario y las veces que se requiera.

- **Paso 2: Crear un plan conjunto de negocios:**

Uno de los requisitos para que el modelo tenga éxito es la creación de un plan conjunto de negocios en donde se comparta la información de las estrategias corporativas y planes de negocios individuales de cada una de las partes.

Cada uno de los socios, es decir por un lado Distoyota y por el otros sus proveedores, después de haber compartido la información individual, deben crear una estrategia para la sociedad, que incluya los roles, los objetivos y las tácticas de cada una de las categorías de productos.

El hecho de tener información conjunta mejora la calidad del plan y este se constituye en el principio básico del proceso de pronóstico y disminuye el volumen de excepciones.

Es necesario tener en cuenta lo siguiente para la creación de un buen plan de negocios:

- Cada una de las partes debe desarrollar planes individuales con base en la información compartida.
- Después de esto se debe acordar un plan conjunto de negocios en donde se comparen los individuales.
- Es necesario identificar cuáles serán las estrategias conjuntas, metas, roles y objetivos que deben ser por un periodo determinado de tiempo y según la categoría de productos.
- Se deberá desarrollar el perfil de la administración de los productos en donde se definan mínimos, máximos, tiempos de respuesta, intervalos de pedidos e inventario de seguridad.

- **Paso 3: Crear un pronóstico de ventas e identificación y solución de excepciones:**

Después de tener diseñado el plan conjunto de negocios se inicia la creación de un pronóstico de ventas y se identificarán aquellas referencias que están por fuera del comportamiento general de las demás para definir el manejo de dichas excepciones.

Para el pronóstico se debe contar con información del punto de venta (POS) así como con la información causal (información histórica) y los eventos planeados.

Distoyota trabaja bajo un escenario en el que la compañía se encarga de realizar el pronóstico de ventas, con base en este realiza el pronóstico de pedidos para luego generarlos.

Para la realización del pronóstico de ventas Distoyota deberá tener en cuenta los siguientes aspectos:

- Como previamente se ha establecido un plan de negocios conjunto, Distoyota debe analizar el impacto que este tendrá en las ventas futuras.
- Basándose en la información causal, Distoyota deberá planear cómo la mejora en los procesos fruto del trabajo conjunto con sus proveedores repercutirá positivamente en sus ventas.
- Recibir información de sus puntos de venta para que ésta sea usada en la realización del pronóstico.

- Es importante conocer todos los eventos que están planeados y que puedan conllevar a comportamientos diferentes en las ventas. Es decir lanzamientos, promociones u otras actividades que pueden aumentar el volumen de ventas, para que estas sean tenidas en cuenta dentro de los pronósticos de ventas.
- Después de conocer y analizar esta información se generará el pronóstico de ventas.

En cuanto al manejo de excepciones, debe haber quedado definido en el acuerdo que se realizó en el paso 1 y permitirá a las partes tener claridad sobre el procedimiento que se lleve a cabo para aquellas referencias que se salgan del pronóstico de ventas. Para una definición acertada de las excepciones es necesario tener en cuenta:

- Los proveedores deben ser informados de cualquier cambio dentro de la estructura de Distoyota que pueda afectar el plan de negocios conjunto.
- Es necesario comparar periódicamente el pronóstico de ventas frente a las ventas reales para determinar si se continúa con el mismo plan de negocios.
- Es conveniente establecer un determinado comportamiento para los ítems que no se consideren excepciones para que en el momento en que alguno de ellos se salga de dichos parámetros pase a ser considerado excepción.
- Distoyota establecerá en conjunto con sus proveedores el listado de productos que serán considerados como excepción y en ellos se dará el manejo establecido previamente en el acuerdo.

Con lo anterior y teniendo en cuenta que el intercambio de información, las reuniones y las demás actividades que se llevan a cabo en el proceso de CPFR fortalecen las relaciones con los proveedores, es muy posible que habiendo tenido información de los puntos de ventas e información causal se logren reducir las excepciones he incluso se realicen modificaciones en el pronóstico de ventas que las amortigüen. Sin embargo si aún existen se deberán buscar soluciones basadas en comunicación constante que permita dar respuesta oportuna a dichas excepciones sin que esto afecte el modelo CPFR.

- **Paso 4: Crear un pronóstico de pedidos e identificación y solución de excepciones:**

Para este paso al igual que en el anterior, Distoyota se apoyará en los datos de los puntos de venta, la información causal y adicionará las estrategias de inventario. Este paso trae varios beneficios a las partes ya que para Distoyota disminuirá el nivel de agotados y para el caso del proveedor, esto le permitirá definir la capacidad de producción requerida para cumplir con la demanda y también podrá definir los inventarios de seguridad. En general los niveles de inventarios para las parte disminuyen y los niveles de servicio al cliente aumentan.

Distoyota debe tener en cuenta los siguientes aspectos para la realización del pronóstico de pedidos:

- Es necesaria la revisión de la información en los puntos de venta, la información histórica como estacionalidad y el estado actual del inventario.
- El proveedor deberá informar a Distoyota todos los aspectos relacionados con producción y transporte y los tiempos que cada uno de ellos requiere.
- En conjunto se definirán los tamaños de pedido mínimo, el tiempo de respuesta para cada categoría de productos, los niveles de los inventarios de seguridad y la frecuencia con que Distoyota generará los pedidos.
- Se debe mantener al proveedor informado del cumplimiento en las entregas con los indicadores previamente definidos en el numeral 6 de este documento.

El resultado deberá ser un pronóstico de pedidos proyectado en el tiempo que le permita al proveedor planear su desarrollo durante un determinado periodo de tiempo.

En cuanto a las excepciones se aplicarán para aquellos productos que se hayan determinado en el paso 3 y se les dará el manejo respectivo.

- **Paso 5: Generación del pedido:**

En este paso Distoyota será el encargado de la generación de pedidos que deberá cumplir con el pronóstico de pedidos, respetando el tamaño de pedido establecido, el tiempo de entrega y la frecuencia establecida en el paso 4.

En un modelo maduro el proveedor estará en la posibilidad de generar automáticamente el pedido debido a que tiene visibilidad de la cadena y ha construido en conjunto con el cliente un pronóstico de ventas y de pedidos.

8. MATRIZ DE ANÁLISIS DE RIESGOS DEL PROYECTO CPFR

RIESGOS	DESCRIPCIÓN	AGENTE GENERADOR	CAUSAS	EFECTOS
Falta de Adherencia	Gran parte del éxito del modelo depende de la adherencia que tengan los empleados de las partes.	Directivas	Falta de motivación a los empleados. Poca claridad en la explicación de los beneficios del modelo. Falta de compromiso de la dirección en la puesta en marcha del modelo.	El modelo puede no ser exitoso si los empleados no asumen el cambio de mentalidad y se puede perder la inversión de recursos destinados al desarrollo del mismo.
Demoras en la implantación	Es posible que debido a que este modelo requiere tiempo de las partes para el desarrollo de reuniones y el diseño de documentos, se presenten demoras en la implantación del mismo.	Empleados	Falta de recursos destinados exclusivamente para el desarrollo del proyecto. Errónea priorización de los compromisos adquiridos. Cronograma de trabajo establecido sin acuerdo previo de las partes.	La dirección de las partes puede destinar los recursos al desarrollo de otros proyectos debido a las demoras que se presenten en la implantación del CPFR.
Acceso a la información	Distoyota tendrá expuesta información confidencial a sus proveedores, lo que lo deja en una posición de vulnerabilidad ante el mal uso de la misma.	Proveedores	Los proveedores tendrán acceso a información confidencial de Distoyota y en el caso de rompimiento de las relaciones comerciales esto puede resultar desfavorable para Distoyota.	Se hará necesaria la firma de acuerdos de confidencialidad de la información.
Agotados	Durante el proceso de implementación del modelo es posible que se presenten agotados.	Proveedores	En el inicio del proceso, cuando se están ajustando los pronósticos de ventas y de pedidos, es posible que se presenten agotados en el suministro de productos.	Agotados con el proveedor principal por lo que Distoyota deberá seguir contando con una segunda opción.
Reprocesos	Debido a que es un nuevo modelo es posible que durante su proceso inicial se deban hacer procesos repetitivos a fin de lograr el objetivo final.	Directivas	Para lograr obtener un modelo óptimo que responda a las necesidades de las partes, el acuerdo y los pronósticos deberán ser evaluados y modificados periódicamente. El personal deberá revisar periódicamente el modelo, ajustarlo e implementarlo. Las directivas deberán mantener al personal motivado y tener en cuenta que en una primera etapa se puedan presentar reprocesos para alcanzar los objetivos.	El personal se puede desmotivar al sentir que debe realizar trabajo repetitivo, por lo que la Dirección debe tener participación activa y mantenerse involucrada.

9. PRESUPUESTO

El desarrollo de este proyecto, se llevará a cabo por personal de DISTOYOTA en horarios hábiles, como parte del desarrollo de sus actividades de compras.

CONCLUSIONES

Teniendo en cuenta la experiencia exitosa de este tipo de iniciativas a nivel mundial se considera que el proyecto tiene una alta posibilidad de cumplir con los objetivos planteados.

El proyecto se convierte en una buena alternativa para lograr obtener una ventaja comercial frente a la competencia, gracias a la optimización de tiempos de entrega, reducción de las rupturas de stock, reducción en cosos de almacenamiento y control de inventarios.

Las estrategias actuales de las empresas están enfocadas en construir una diferenciación no orientada al producto sino en servicio y experiencias alrededor de este, teniendo en cuenta esto el proyecto contribuye con este objetivo empresarial.

Su fácil implementación, bajos costos de inversión y resultados visibles a mediano plazo hacen que el proyecto genere interés en la alta dirección de la compañía esto facilita la implementación, el mantenimiento y el mejoramiento del mismo.

ANEXO 1

ENCUESTA DISTRIBUIDORA TOYOTA SAS

1. Clasifique por importancia los siguientes costos logísticos siendo 1 el más importante y 7 el menos importante:
    a. Preparación de pedidos
    b. Gestión Logística
    c. Distribución
    d. Embalajes
    e. Stock
    f. Transporte
    g. Almacenaje
2. Cuál es el porcentaje del costo logístico respecto al precio de venta del producto o productos que le vende al Distoyota?

    _____
3. Ha identificado alguna estacionalidad o periodicidad de tiempo específico respecto a los pedidos que realiza Distoyota?

    Si ☐

    No ☐

    En qué meses?

    _____
4. Si Distoyota le entregara una proyección de compra, esto contribuiría al mejoramiento de las entregas y producción de los productos que nos suministra?

    Si ☐

    No ☐

    Porque?

    _____
5. Su empresa contempla unidades mínimas de compra basado en la demanda?

Si ☐

No ☐

6. Sabe en qué consisten las relaciones colaborativas entre proveedores y clientes?

   Si ☐

   No ☐

7. Considera práctico y factible implementar VMI (Inventario Administrado por el proveedor) para la administración del inventario.

   Si ☐

   No ☐

   Porque?

   _____

8. Considera que la forma en que Distoyota realiza los pedidos en cuanto a cantidades y frecuencias es adecuada para su negocio?

   Si ☐

   No ☐

   Porque?

   _____

9. Su compañía tiene definido un proceso de planeación de demanda?

   Si ☐

   No ☐

10. Su empresa tiene un indicador de exactitud del pronóstico de ventas?

    Si ☐

    No ☐

11. Le haría alguna recomendación o sugerencia al departamento de compras de Distoyota? Cuál?

    _____

    _____

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CPFR® Case Study: Liquor Control Board of Ontario

Craig Miller, Team Leader Supply Chain
LCBO

GS1 Canada

Improving Product Flow

Agenda

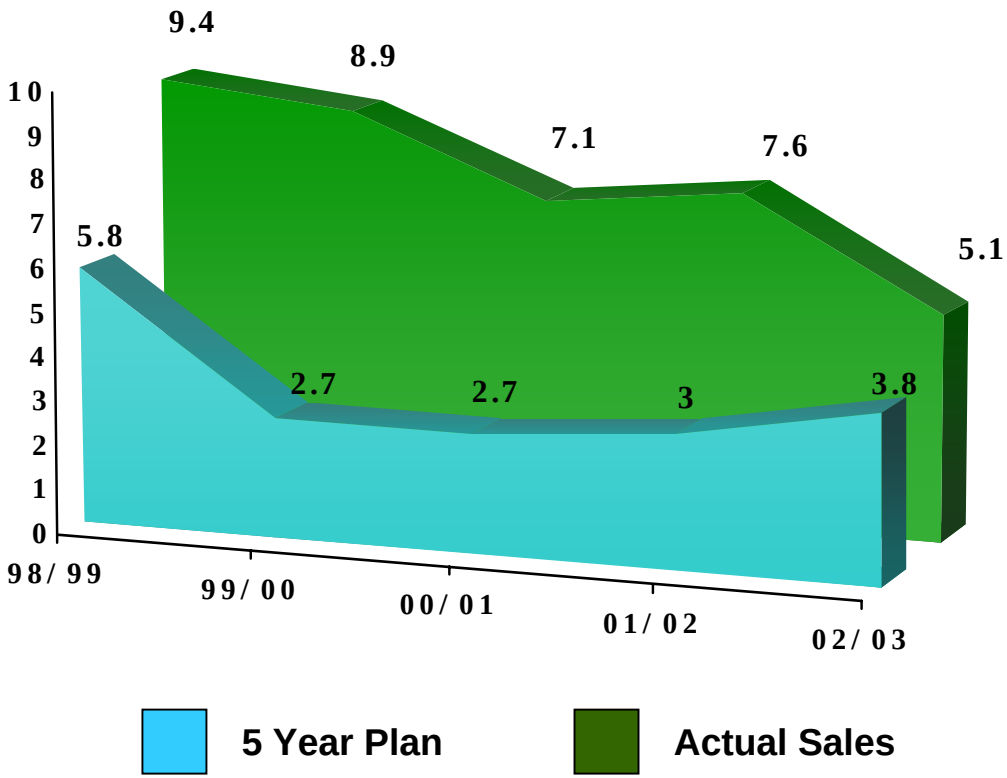
- Business Environment
- The Challenge
- The Solution
- Barriers to Collaboration
- CPFR® Results
- Questions

Business Environment

New Retail Strategy

- Renovated stores
- More dynamic product assortments
- Innovative merchandising programs and displays
- Enhanced shopping experience
- Positive consumer response

LCBO Sales Revenue



Business Challenge

Success of retail strategy strained the supply chain

- Uncertainty of demand
- Unreliability of supply
  - Warehouses pushed to capacity
  - Inventory turns declined to 8.5X
  - On-Time Delivery Rates fell
  - In-Stock Position weakened


ZONIN
+024422
P.O. 45281
16,5 kg.
Liquor Control Board
Of Ontario
15 04 02
KOURTAKI
White Table Wine
ROCAMAR
Marcus James
GRANDS VINS
ROBERT GIRAUD
+033605 LBO
Château Puyfromage

Business Challenge

Increasingly complex supply chain

- Consumer tastes were changing
- Product portfolio expanded
- Procurement from 68 countries on five continents
- Long lead-times
- High number of touch points

Supplier

Freight
Forwarder/Consolidator

Port

Ship

Port

Rail

Terminal

Pickup &
Delivery

Durham
Warehouse

Retail

Business Solution

Supply Chain Project Team

- Reports to Steering Committee

Mission Statement

- To build Supply Chain innovative solutions that improve product flow across a network of partners collaborating efficiently and effectively

Role

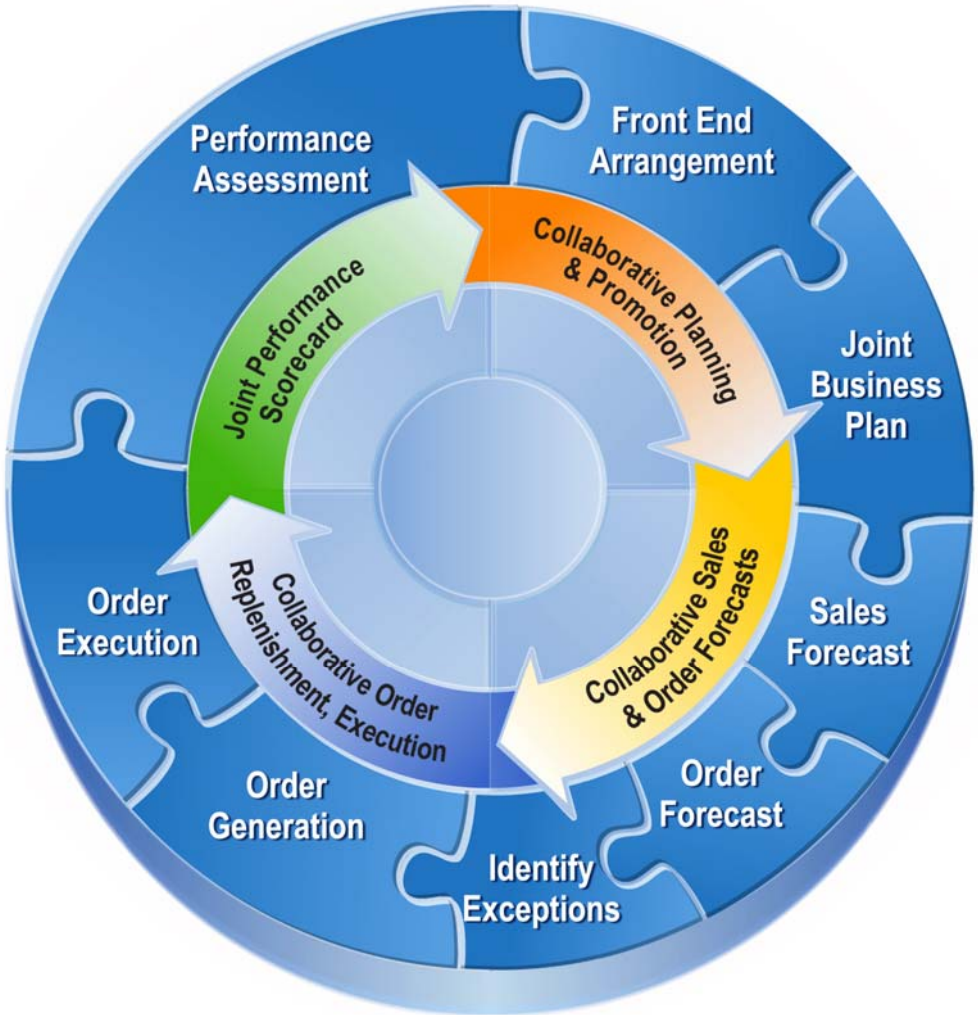
- Build workable solutions
- Turnover to end users

"Communicate everything you can to your partners. The more you communicate, the more they will understand. The more they understand, the more they will care."

~ Sam Walton

Business Solution

- **Research Industry Best Practices**
- **Modeled our solution after VICS CPFR® process**
  - standardized
  - scalable
  - repeatable



Business Solution

Developed and implemented a **Collaborative Planning, Forecasting and Replenishment Solution**

- Fully integrated and automated
- Customized for LCBO
- Suppliers were an integral source of input throughout the development phase
- 2003 - piloted with 6 suppliers
- 2005 – expanded to 21 suppliers representing 34% of the business

Business Solution

Information Sharing with Trading Partners

- Automated, weekly transmissions
- Provides suppliers with visibility to sales, inventory and open purchase orders

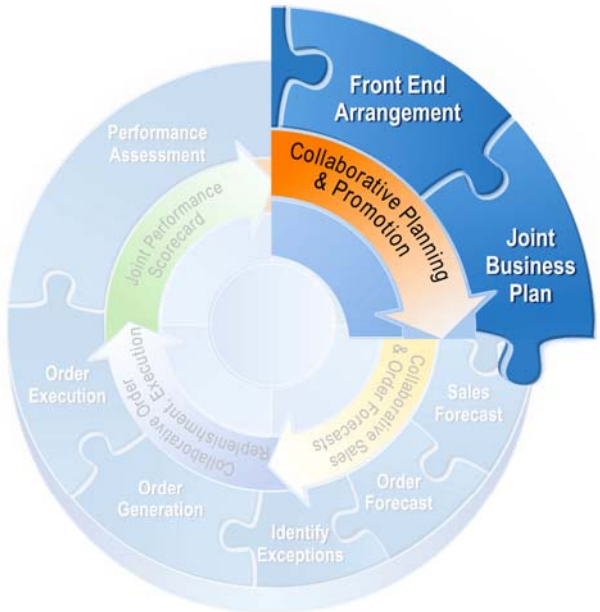
Business Solution

Promotion Planning

- Develop an 18 month promotional plan
- Themes, dates, and promotional details

Benefits

- Suppliers develop more impactful promotional plans
- Share more market / channel information



Business Solution

Sales Forecast

- Create two forecasts
- Document assumptions (forecasts will always be inaccurate)
- Identify and resolve exceptions
- Consensus forecast

Benefits

- More accurate forecast of promotional lift
- Understanding of assumptions facilitates resolution
- Improved understanding of the impact of promotions

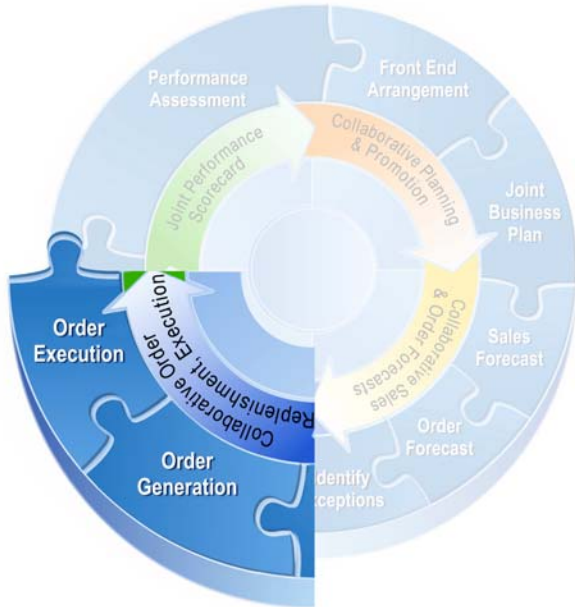
Business Solution

Order Replenishment

- Visibility to a rolling 52 week order forecast

Benefits

- Improved operating efficiency
- Asset utilization



Business Solution

Benefits (continued)

Supplier

- Production planning
- Material requirements planning
- Reduction in raw material and finished goods inventory

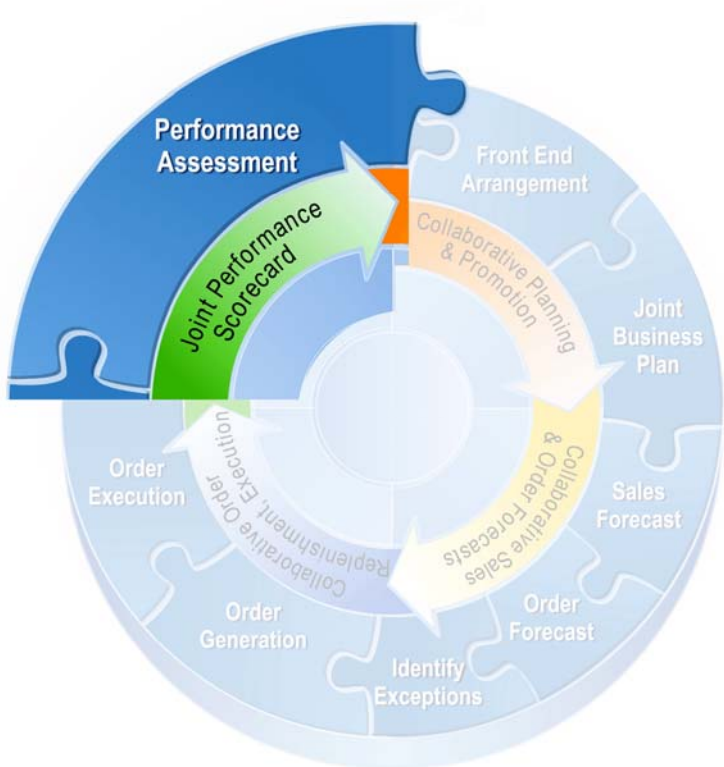
LCBO

- Shorter lead-times
- Reduced safety stock levels
- Improved on time delivery, order fill rates

Business Solution

Performance Assessment

- Supplier Scorecard
- Quarterly Reviews
- Supplier Performance Reports
- Sales & Order Forecast Templates



Business Solution

Forecast Metrics

- WMAPE (Weighted Mean Absolute Percentage Error)
- Value Added Forecast Indicator
- Tracking Signal

Inventory Metrics

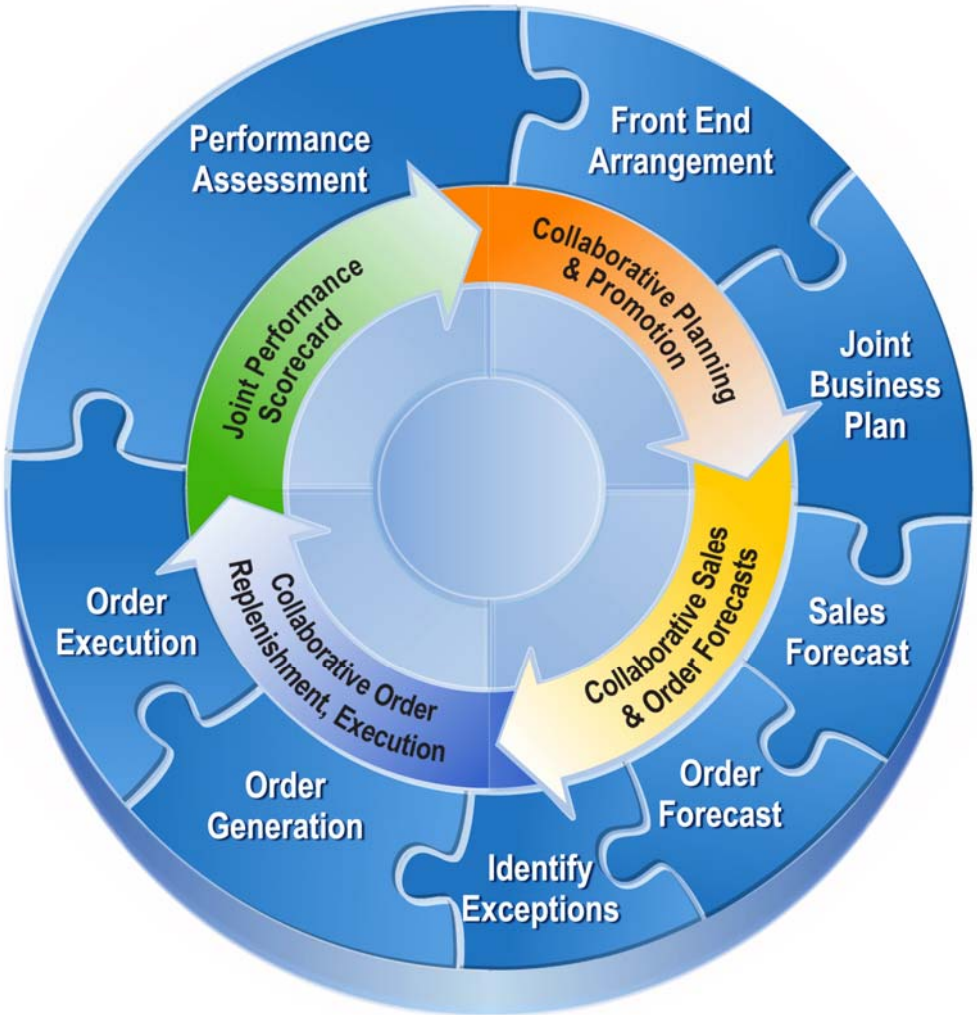
- Week's Supply
- On-Time Delivery
- Order Fill Rate
- Lead-Time

Business Solution

Supplier Communication & Review

- Receive quarterly update on key performance metrics
- Suppliers supported regular feedback and was viewed as beneficial
- Sets benchmark and provides incentive for improvement
- Identifies problems

SUPPLIER REVIEW CPFR - 2005/06 Quarterly Results		
Supplier	WMAPE	
[redacted]	97.4%	
[redacted]	93.1%	
[redacted]	93.0%	
[redacted]	90.1%	Target
[redacted]	89.4%	
[redacted]	88.3%	
[redacted]	87.9%	
[redacted]	87.5%	
[redacted]	87.4%	
[redacted]	87.3%	Average
[redacted]	86.5%	
[redacted]	83.9%	
[redacted]	83.6%	
[redacted]	83.1%	
[redacted]	82.9%	
[redacted]	82.8%	
[redacted]	81.8%	
[redacted]	78.0%	
[redacted]	71.8%	
[redacted]	68.1%	
[redacted]	62.8%	

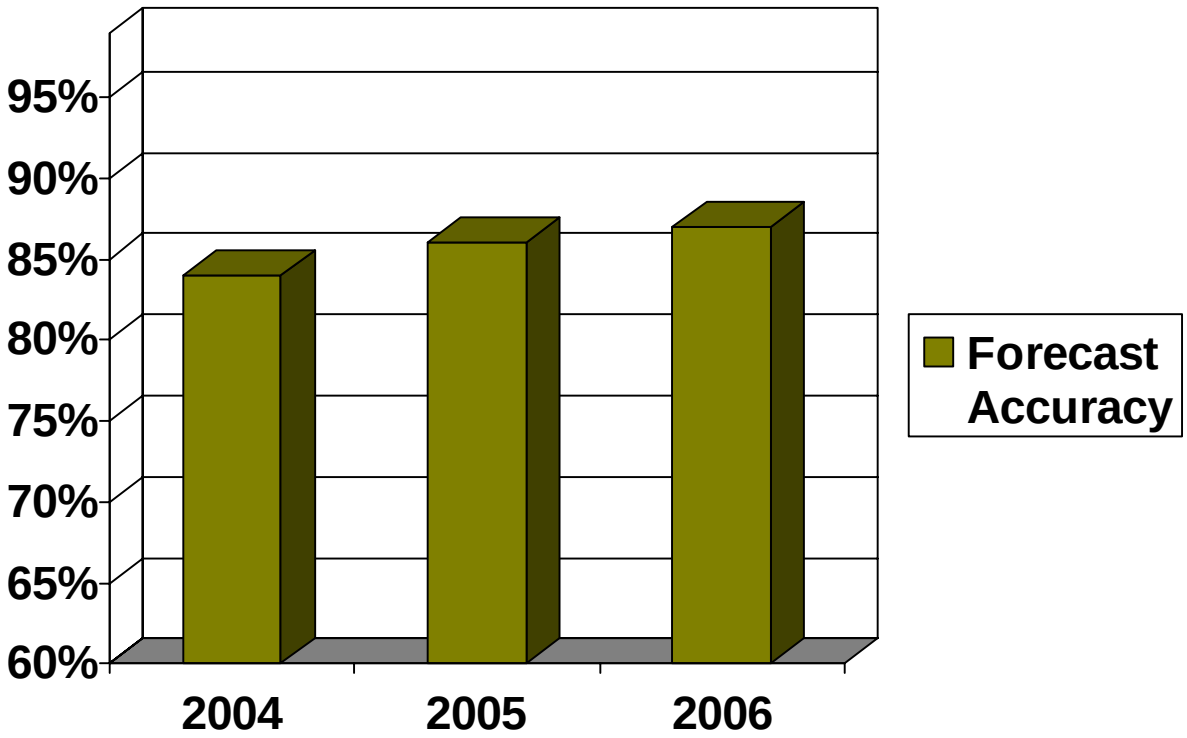


Barriers to Collaboration

- Trust
  - Open to share key information
- Commitment
- Dedicated supply chain resource
    - “Get beyond the Account Manager”
    - Operational level
- Cost
- Complexity

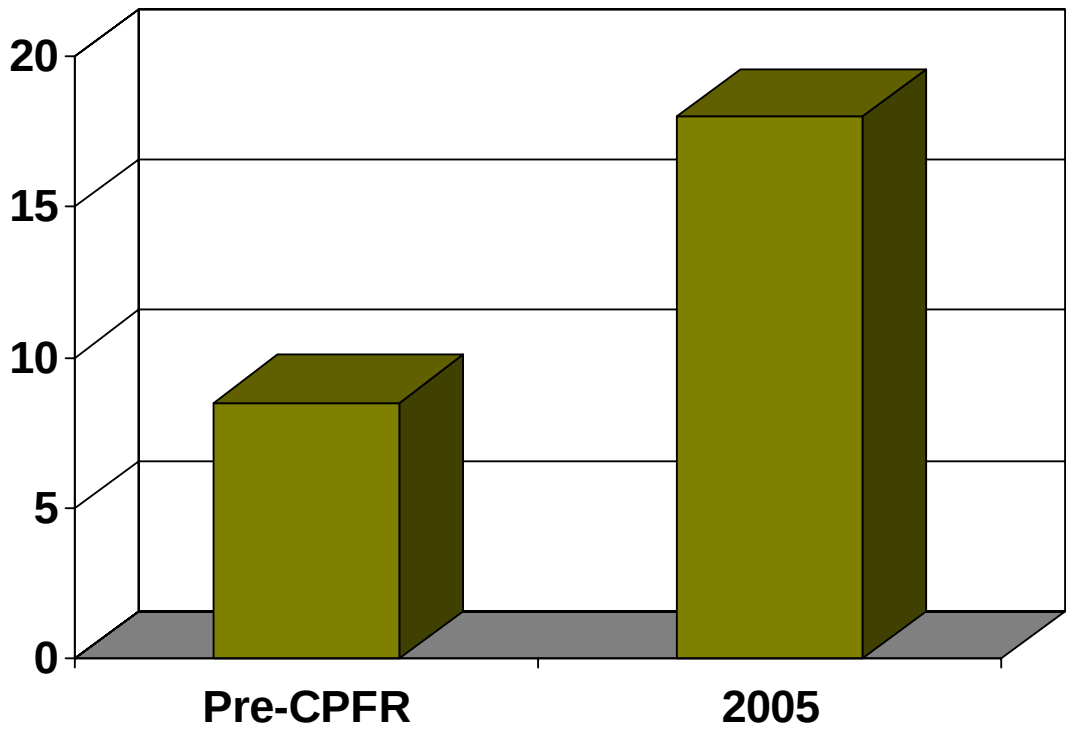
LCBO Results

WMAPE



LCBO Results

Increased Inventory Turns



LCBO Results

- Improved In Stock Position
- Improved Order Fill Rate
- Improved On-Time Delivery
- Improved GMROII
- Improved Customer Satisfaction

Questions

Contact details

GS1 Canada
1500 Don Mills Road, Suite 800
Toronto, Ontario M3C 1V9
Education Centre Help Desk:
1.800.567.7084 ext 4363
www.gs1ca.org
Education.centre@gs1ca.org

VICS
Voluntary Interindustry Commerce Solutions

CPFR®

Linking CPFR and S&OP:

A Roadmap to Integrated Business Planning

Ver. 1.0
September, 2010

Don't wait to be great… Collaborate ™

www.vics.org

A Guideline of the Voluntary Interindustry Commerce Solutions Association

"Linking CPFR and S&OP: A Roadmap to Integrated Business Planning"

Table of Contents

The VICS CPFR® Committee Advisory Team

Larry Smith, West Marine, Inc., Co-Chair *

LeRoy Allen, Lowe's Companies, Inc., Co-Chair *

Jim Flannery, The Procter & Gamble Company, Co-Chair

Gary Maxwell, Walmart Stores, Inc., Co-Chair

Joe Andraski, VICS

Mary Adamy, Oliver-Wight Americas, Inc. *

Gene Arnold, Kimberly-Clark Corporation

Fred Bauman, JDA Software Group, Inc. *

John Bermudez, Oracle America, Inc.

Robert Bruce, Hewlett-Packard Company *

Stan Fawcett, Georgia Southern University

Brian Greene, JCPenney

Ron Ireland, Oliver-Wight Americas, Inc. *

Al Jankauskas, Kraft Foods North America

Clint Johnson, Walmart Stores, Inc. *

Margaret Kairis, Sony Electronics, Inc.

Steve Pantier, Accenture *

Mike Pechtel, Whirlpool Corporation *

Lloyd Rinehart, University of Tennessee

Todd Schilling, Best Buy Co., Inc.

Anita Spence, Dillard's, Inc.

Matt Waller, University of Arkansas

Jack Watson, Dell

Asterisks identify the co-authors for this "Linking CPFR® and S&OP" guideline

1. Overview

VICS, the VICS Collaborative Planning, Forecasting and Replenishment (CPFR®) Committee and VICS member companies have recognized a significant shift in many firms' approach to value chain planning, integration and execution. Leading retailers and their suppliers are becoming more significant stakeholders in the business planning and execution capabilities of their key trading partners. Planning horizons are being extended, consensus single number planning is becoming more prevalent and standardized planning processes and balanced scorecards are moving beyond supply chain planning to executive business management. The VICS CPFR Committee's review of company case studies and industry research has led us to propose a new best practice model that links Sales and Operations Planning (S&OP) and CPFR to create an Integrated Business Planning (IBP) model across trading partners.

You should be interested in this best practice business process guideline from VICS if you continue to find business performance curtailed because of a lack of coordination, alignment and trust between functional areas within your own firm or between your firm and its most important trading partners. While you may have significant strengths in engineering or product development, marketing or logistics, your company may not have a best practice executive management process that enables you to unlock significant value through collaborative innovation.

The hallmarks of Sales and Operations Planning are establishing a process to create a single consensus operational and financial plan for the firm through a series of coordinated reviews led by senior management to integrate strategic, operational and financial plans over an extended horizon. S&OP is the best practice model for internal collaboration for a business entity. The hallmark of CPFR is the development and execution of consensus plans between trading partners. Fundamentally, the aim of CPFR is to convert the supply chain from a disjointed, ineffective and inefficient "push" system to a coordinated "pull" system based upon end consumer demand. CPFR is the best practice model for external collaboration between business entities. The untapped opportunity is linking S&OP and CPFR to develop an integrated business plan which is coordinated across trading partners to manage the extended supply chain and create competitive advantage for each chain participant. Leading companies have progressed in implementing and obtaining traditional benefits from both S&OP and CPFR such as improved coordination and predictability. What most firms are still missing are the benefits that can be gained from linking strategic plans across the extended supply chain.

What are the key factors driving supply chain partners to link their S&OP and CPFR executive management processes? Suppliers are driven to partner with large finished goods manufacturers and manufacturers are driven to partner with large retail organizations whose purchases change the scale of production and therefore the cost of new products. Large retailers are requesting tailored product offerings that align with their marketing objectives. Large retailers' upstream supply concerns are becoming more similar to that of manufacturers concerning supplier capacity or component and raw material availability. Leading supply chain companies are demonstrating that collaboration with suppliers over an extended planning horizon can provide competitive advantages in product development, alignment of marketing programs and life-cycle and assortment management.

2. The Benefits of S&OP and CPFR:

The benefits of S&OP and CPFR include:

S&OP Benefits Reported by 40 Companies:

- Increased Forecast Accuracy by: 18% to 25%
- Increased Sales Revenue by: 10% to 15%
- Increased On-Time Delivery by: 10% to 50%
- Inventory Reduction by: 18% to 46%
- Safety Stock Reduction by: 11% to 45%
- Increased Productivity by: 30% to 45%

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Benefits of CPFR:

- Increased Sales by: 10% to 30%
- Increased Margin Rate by: 2% to 6%
- Increased In-stocks by: 2% to 7%
- Decreased Inventory by: 10% to 30%
- Improved On Time Delivery by: 5% to 10%
- Improved Forecast Accuracy by: 20% to 30%
- Decreased Logistics and Operating Costs by 10% to 28%

VICS CPFR Case Studies and Collaborative Commerce Achievement Award Winners

Although companies cannot compound the benefits when doing both S&OP and CPFR, companies that link CPFR and S&OP are operating in the upper ranges of traditional benefits and achieving results beyond the tactical and operational benefits that flow from stand-alone CPFR and S&OP activities. The integration of intra-company plans across a longer-term horizon and the shift from middle management tactical conversations to executive engagement on strategic plans are critical to achieving these benefits.

Some of the benefits of linking CPFR and S&OP include:

Hard Benefits:
- Sales and margin growth
- Perfect order performance
- Reduced inventory cost
- Product offerings tailored to both the manufacturer's and the retailer's brand

Soft Operational Benefits:
- Visibility of each company's business plans
- Knowledge of each other's business
- Leveraging assets via an integrated sales plan
- Understanding the root causes of forecast error

Soft Strategic Benefits:
- Improved integrated business planning through senior management involvement
- Increased predictability, scenario planning and probability assessment
- Aligned strategic objectives with a structured performance management program
- Coordinated go-to-market planning
- Coordinated new product plans, lifecycle planning
- Coordinated promotions, demand-shaping programs
- Trust and a commitment to win-win solutions achieved through innovative performance improvements

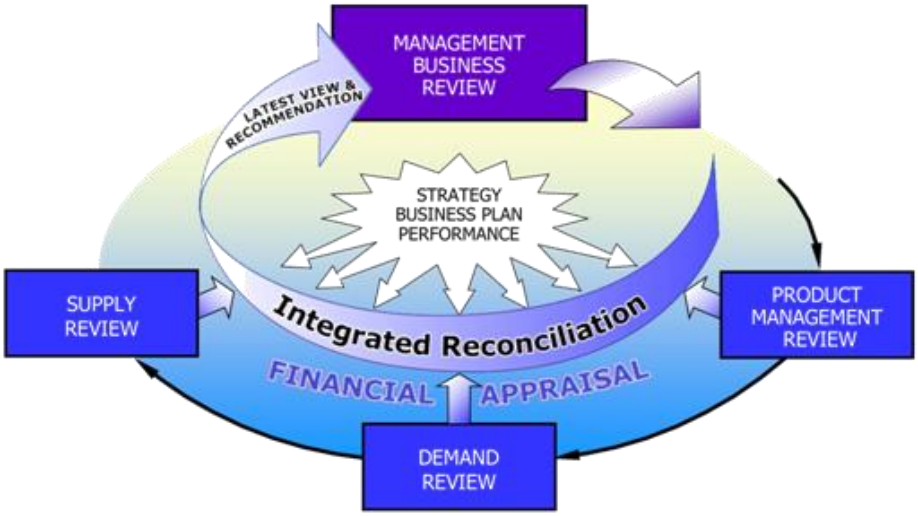
This guideline asserts that linking the internal best practice collaborations of both retailers and suppliers using S&OP and CPFR will enable a more profitable Integrated Business Planning model for both organizations. S&OP was developed approximately thirty years ago. It has evolved to become a more strategic business process, led by executive management. S&OP is a widely-respected process among manufacturers and suppliers. A key new insight of this guideline is that S&OP is equally applicable to retailers. In fact, we support S&OP as a general best practice model for strategic business management and excellence in business execution. CPFR was developed over ten years ago, and it too has evolved to become a much more strategic business practice. CPFR is led by executive management and encompasses large scale implementations with multiple trading partners. Whether your firm is a component supplier, a finished goods manufacturer, a reseller or a retailer selling to the end-consumer, implementing these standards-based best practice solutions will reap significant financial benefits.

3. S&OP and CPFR: Foundational building blocks for achieving linked IBP.

Sales & Operations Planning (S&OP)

Sales & Operations Planning (S&OP) is a formal process led by Senior Management that on a monthly basis evaluates the time-phased rolling projections for new products, demand, supply and the resulting financials. It is a decision making process that aligns tactical plans to the company's strategy over a rolling 18 to 24 month horizon. The objective of S&OP is to reach consensus on a single operating plan which allocates critical resources to most effectively and profitably meet customers' needs. The output of the process is a synchronized product, demand, supply and financial plan over a recommended 18 to 24 month horizon with identified risks and opportunities as well as action plans to resolve any gaps to either the annual business plan or the firm's longer-term strategic plan.

The recognized best practice for conducting a monthly S&OP process is a multi-step model:



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The multi-step model includes the following five primary reviews that occur sequentially throughout each monthly planning cycle: Product Management Review, Demand Review, Supply Review, Integrated Reconciliation and Management Business Review. Each step of the monthly process by design must have a clear objective, an owner/chair of the review, a facilitator or process coordinator, and defined roles, responsibilities and accountabilities for all review meeting participants. All steps are planned at aggregate and family of business levels across an 18 to 24 month horizon.

1. **Product Management Review:** Owned by the Product Management Executive (Manufacturing) or Merchandising Executive (Retail), the objective of the Product Management Review is to ensure that the product plan, including new products and assortment plans as well as other strategic growth activities of the company are on track for time, cost, demand, supply and resources, and that these plans are in alignment with strategic goals. The Product Review is critical for ensuring the health of the firm's innovation pipeline and particular focus is paid to product life-cycle management.
2. **Demand Review:** Owned by the Sales and/or Marketing Executive (Manufacturing) or Sales Channel and/or Merchandise Planning Executive (Retail), the objective of the Demand Review is to achieve consensus on a valid, unbiased demand plan and resulting point of sale or shipment forecast that will become the request for product from the end-to-end Supply Chain as well as integrated financials and gap management activities within and across trading partners. The output of the Demand Review is an unbiased demand plan over a rolling 18 to 24 month horizon with assumptions, risks and opportunities identified and action plans to address gaps in annual and strategic business objectives.
3. **Supply Review:** Owned by the Manufacturing/Supply Chain Executive (Manufacturing) and the Supply Chain Executive (Retail), the objective of the Supply Review is to ensure supply capability including manufacturing capacity, supply chain inventory, transportation and logistics/DC capacity and resources can meet the demand plan, customer service, quality and cost objectives. Imbalances in Demand and Supply are reconciled with appropriate

alternatives and recommendations. The Supply Review ensures that contingency plans are identified to address additional demand risks and opportunities identified by the Demand Review.

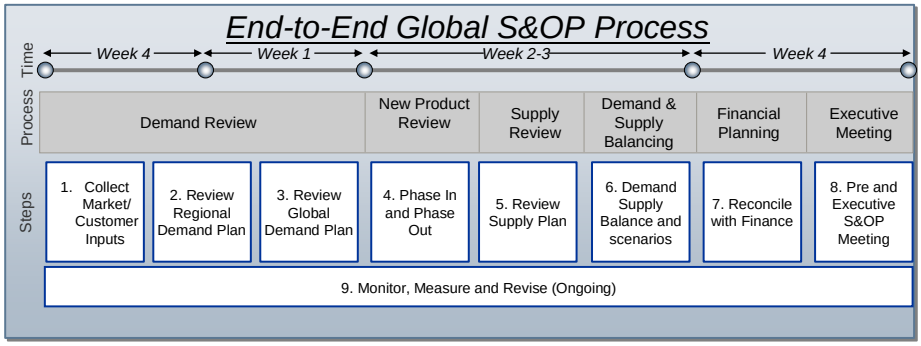
4. **Integrated Reconciliation:** Owned by the Finance Executive/S&OP Coordinator, the Integrated Reconciliation is utilized to prepare scenarios to resolve key issues identified in the Product, Demand or Supply Reviews. Additionally this step utilizes the Demand and Supply plans to develop the integrated financial plan including revenue, margin and other P&L, balance sheet and cash flow effects. The Integrated Reconciliation prepares the material and alternatives for decision at the Management Business Review.
5. **Management Business Review:** Owned by the General Manager, President or CEO of the business, the Management Business Review is the decision-making meeting to approve the consolidated operational and financial plan from the prior steps and make decisions regarding issues surfaced during the monthly cycle that require executive guidance. The Management Business Review ensures plans and decisions are in alignment with the defined business strategies.

As companies practice and institutionalize S&OP over time, the reviews progress from a focus on increased communication and internal collaboration to problem solving, problem prevention, and ultimately to strategic deployment at the most advanced stage of maturity.

In addition to the benefits described earlier, companies that implement S&OP find they have more reliable plans and better accountability for the plans by participants. Companies find that they reduce fire fighting and ad hoc activities. They develop common goals and plans that drive company performance versus a focus on functional goals at the expense of company performance. S&OP enables the executive team to manage the business, linking tactical activities to strategic goals, and it also empowers middle managers and front-line associates to engage in this process. As a result, S&OP improves overall quality of work life.

While manufacturing and retail adaptations of S&OP are slightly different, the steps, principles, and horizon of the process are fundamentally the same. The primary differences between them are that the executive sponsor (role and title described above) of each step and some of the content of each review may be different. For both manufacturing and retail adaptations of S&OP, the cadence of reviews follows a monthly structure of planning and re-planning meetings as shown below.

What is the S&OP Process Cadence?



Source: JDA Software Group, Inc.

Collaborative Planning Forecasting and Replenishment (CPFR®)

Collaborative Planning, Forecasting and Replenishment (CPFR®) is defined as a business practice that combines the collaborative intelligence of multiple trading partners in the planning and fulfillment of customer demand. CPFR links sales and marketing best practices, such as category management, to supply chain planning and execution processes to increase availability while reducing inventory, transportation and logistics costs.

VICS CPFR® Model

In the retail industry variant of the model shown above, the manufacturer as the seller and retailer as the buyer engage in four Collaborative Activities to improve their performance: The model also applies to upstream buyer and seller relationships.

Strategy & Planning: Establish the ground rules for the collaborative relationship. Determine product mix and placement, and develop event plans for the period.

Demand & Supply Management: Project consumer (point-of-sale) demand, as well as order and shipment requirements over the planning horizon.

Execution: Place orders, prepare and deliver shipments, receive and stock products on retail shelves, record sales transactions and make payments.

Analysis: Monitor planning and execution activities for exception conditions. Aggregate results, and calculate key performance metrics. Share insights and adjust plans for continuously-improved results.

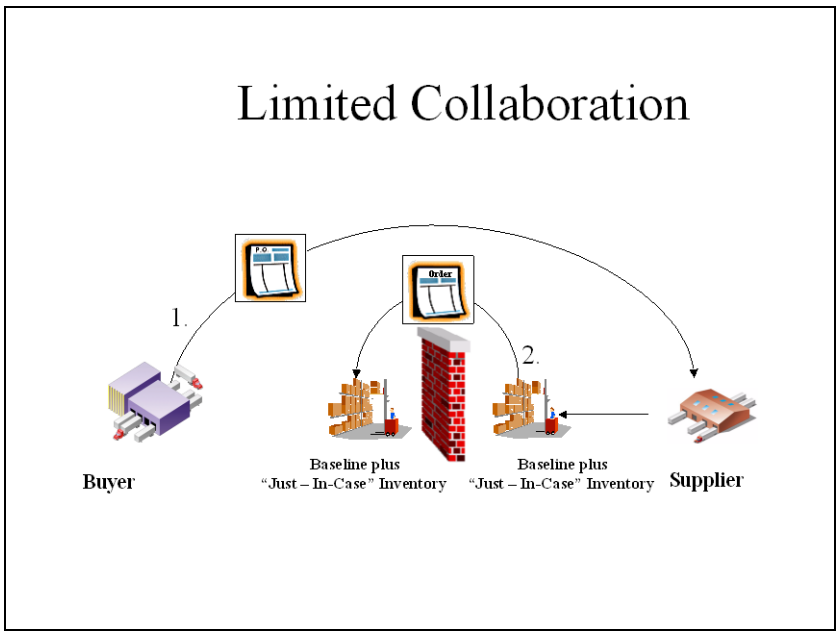
While these Collaboration Activities are presented in logical order, most companies are involved in all of them at any moment in time. There is no predefined sequence of steps. Execution issues can impact strategy, and analysis can lead to adjustments in forecasts. The depiction of the CPFR model may be described as a process model which focuses on defining key arenas for collaborative activities, while the S&OP model is a step model which focuses on defining key review steps in the monthly re-planning activities that are both tactical and strategic. The VICS CPFR guidelines and VICS CPFR certification courses describe a sequence of planning meetings which include all levels of the trading partner organizations. Like S&OP programs, CPFR programs have clear calendars of weekly, monthly, quarterly and annual activities that govern the collaborative planning and execution cycle. The CPFR guidelines distinguish between executive-level responsibilities such as aligning trading partner goals and strategies and operational-level responsibilities such as ensuring that participants know each other's processes well enough to leverage complementary competencies.

At the tactical level, the CPFR guidelines describe routine weekly or monthly collaborative meetings (or conference calls) to review the results of initiatives and manage key exceptions. Designed for efficiency and effectiveness, these meetings can be relatively brief or extended, depending on the importance of the specific trading partner relationship. Suggested agenda items include 1) a review of current performance metrics for both sides, 2) managing current team initiatives with clearly assigned accountabilities and milestone deliverables, 3) identifying and resolving supply constraints based upon the collaborative forecast, and 4) a review of changes to the demand forecast based upon promotional planning, assortment planning or any other change to the demand plan. At a more strategic level, the CPFR guidelines describe quarterly or periodic planning meetings for each collaborative engagement that include cross functional managers and process owners to define and redefine the specific tactics and deliverables of the CPFR engagement. The CPFR guidelines also describe executive annual or semi-annual management meetings of the trading partners to define and redefine strategies, including their strategies to continuously improve performance.

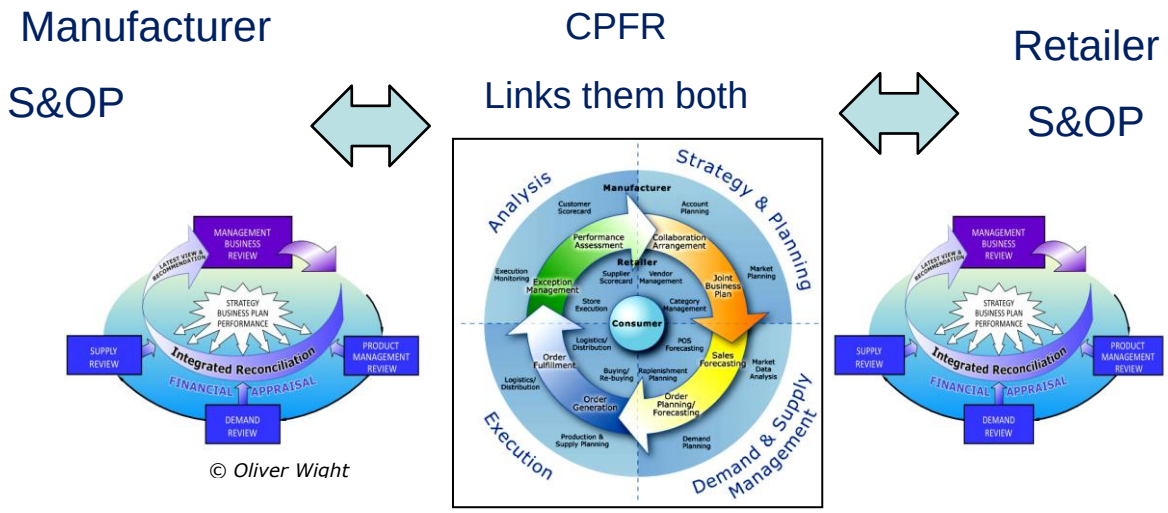
The development of large-scale CPFR programs has created the necessity to manage to tiered relationships for collaborative success. While a CPFR lead partner may universally require significant supply chain performance improvements and catalyze organizational change across many of its trading partners, resource constraints and ROI considerations make it obvious that there can only be a limited number of intense collaborations with key trading partners. These key relationships are called strategic alliance partnerships, and these are the relationships where we see the opportunity to link CPFR and S&OP.

4. Integrated Business Planning: Linking CPFR and S&OP

Most companies still operate with limited collaboration and fail to tap into the performance improvements that leading companies are achieving. Without collaboration, internal disciplines are disconnected and functions operate with their own operational forecast for the business. The time horizon for business execution visibility is short term. Day-to-day operations are not connected to strategic goals. Suppliers have only a limited view of future demand requirements. The retailer lacks category or market insights that could be provided by key suppliers, and each trading partner forecasts their needs independently. Past supply chain outages drive both suppliers and buyers to build buffer stocks to avoid risk, and without a shared view of consumer purchases, the planning systems of both retailer and supplier tend to build inventories based upon historical shipment variability that is not related to consumer buying patterns. When supply outages occur, the buyer-seller relationship becomes adversarial.



Both S&OP and CPFR are best practice collaboration processes. S&OP is a strategic business management process that aligns centers of functional excellence in a coordinated internal collaborative process. CPFR is a strategic business management process that aligns the complementary capabilities of trading partners in a coordinated external collaborative process. In the model below, the Manufacturer S&OP and Retailer S&OP internal collaboration processes are linked together using the CPFR external collaboration process.



How will the meeting and decision processes evolve in linking CPFR and S&OP between strategic alliance partners? What forms will the *discipline of getting things done* take in the new linked best practice model? We believe that one good answer is in applying the monthly review cycle and long-range planning horizon of S&OP to the collaborative engagement of CPFR. We provide an example of that application in the case study included in this guideline.

Successful implementation of an Integrated Business Planning process between two companies is a multi-phase journey that can take years to complete. Companies typically move through stages of evolution and may not choose to implement all steps or involve all business units at once. And it is common for companies to revise their collaboration strategies as they evolve. The Lowes – Whirlpool case study illustrates how two companies are collaborating to implement an Integrated Business Planning process by linking CPFR and S&OP.

5. The Case Study: Lowes Home Improvement and Whirlpool Corporation

Until several years ago, most of the communication between Lowe's Home Improvement and Whirlpool Corporation was through their Merchandising and Sales organizations. The relationship could get strained at times - a result of each making decisions that affected the other one, but not discussing them until one of them felt the impact. Their collaboration processes have evolved over the last three years and they are currently in the early stages of running an Integrated Business Planning process. They did not get there overnight; it has been a journey through several phases of implementation.

Their partnership began with a focus on collaborative demand planning, concentrating primarily on order forecasting, with limited discussion of sell-thru or inventory. Exhibit 1 below illustrates the linkage between Lowe's and Whirlpool at the operational level. During Stage 1, collaboration discussions were focused on the near-term horizon, typically less than three months, with very little consistent mid-range or long-term planning. Demand planning activities were more heavily dependent upon statistical forecasting, with very little enrichment applied to the forecast. There was limited visibility to each company's go-to-market plan, which created disconnects in objectives. The two companies basically had independent business plans driving their individual sales and operational plans.

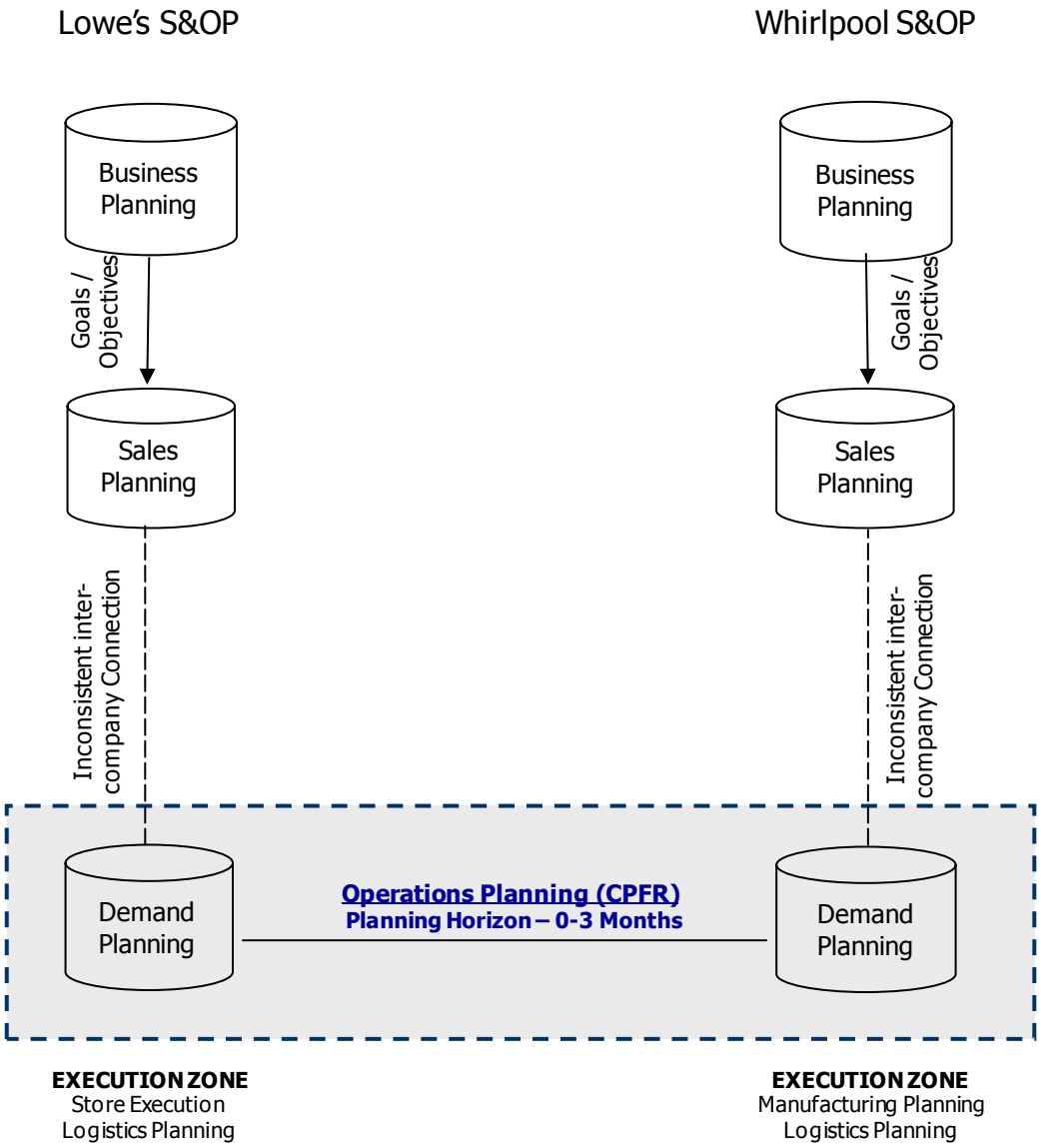


Exhibit 1: Lowe's/Whirlpool Stage I … Traditional Demand/Supply Planning (2007 - 2008)

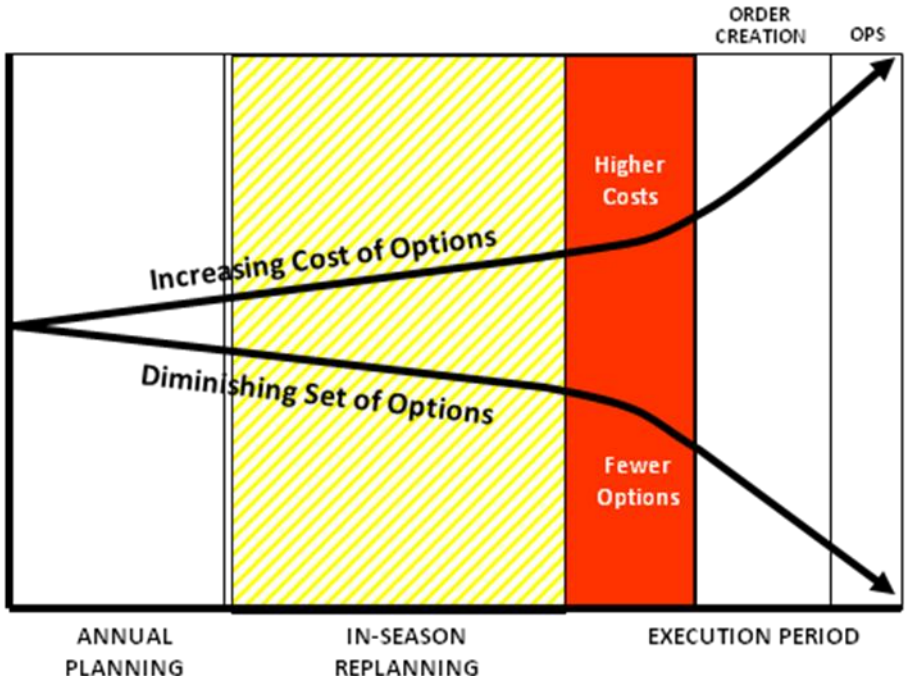
After stabilizing the collaborative demand planning process Lowe's and Whirlpool moved more towards supply planning. Lowe's initial focus was on recognizing the capabilities and limitations of Whirlpool's manufacturing divisions. Both companies worked to develop an understanding of each other's required target inventory levels, and the importance of product transition planning relative to inventory. This was pivotal because at this point, their supply chain organizations became actively involved with the sales and merchandising organizations.

Collaboration between a retailer and a manufacturer is often driven by traditional CPFR relationships that typically exist at the operational level of the organizations. Collaboration is focused on demand and supply planning at the item level, with forecasts reviewed between forecast teams. While traditional S&OP processes often exist within each company, collaboration at higher levels in the organization is sporadic and inconsistent. Such gaps in the CPFR linkages can often create sales plans that do not include future initiatives such as advertising, promotions and product transitions. As a result, operational planning in each independent organization is not based on an accurate demand

forecast. This limits forward visibility. When forward visibility is limited, and companies are not meeting business plans, their options for getting back on plan are fewer and typically more expensive.

Lowe's uses the graph below internally, to discuss the importance of planning and increasing forward visibility. Consider progressing through a season from left to right, going from the most forward-looking plans – for them it's their annual operating plans – to more tactical execution. The far right is the point in time where the product is moving and is close to landing at the stores to be sold.

As in most companies, when moving through the year, changes begin. The key point of this diagram is that when something happens that could cause you to get off plan, the more forward visibility you have, the more options are available and the costs of those options are lower.



As illustrated in Exhibit 2, during late 2008, Lowe's and Whirlpool made the decision to merge their collaboration effort with Whirlpool's S&OP process to provide the infrastructure necessary to extend the planning horizon beyond three months.

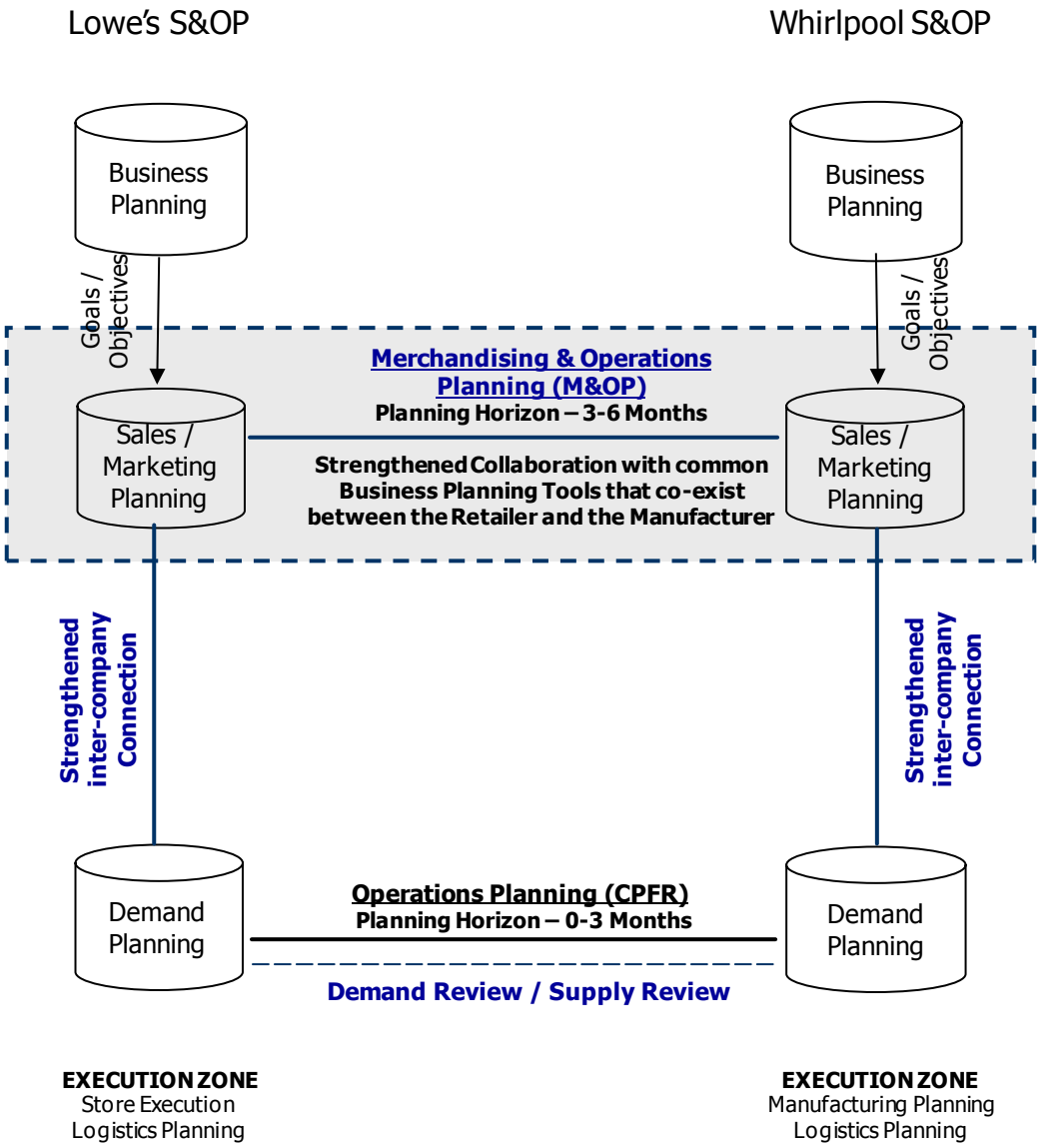


Exhibit 2: Lowe's/Whirlpool Stage II … Integrated Sales & Operations Planning (2008 – 2009)

Lowe's and Whirlpool established relationships at the sales and marketing mid-management levels in the organizations, and collaboration linkages were created. At that point, the two companies really started to "change the game" by turning their attention to sales and marketing planning. Through structured Demand and Supply Reviews, their collaboration efforts drove business planning towards a single set of aligned forecasts and sales plans. Through a strengthened Product Management Review process they were able to focus their collaboration on promotions, product launch planning and special event planning. The end result was an integrated promotional calendar for each product category. The additional forward visibility in sales plans allowed the two companies to, at this point, extend their planning horizon to 3 to 6 months.

Lowe's and Whirlpool both realized another benefit from implementing a joint sales and marketing planning process. Their own internal collaboration efforts improved substantially due to the discipline required to run a joint sales and marketing planning process. They now have a rolling 12-month Collaboration Arrangement that serves to outline all collaborative planning activities with consistent involvement from middle management.

Lowe's and Whirlpool substantially improved their collaboration processes in 2008 and 2009; however, they had some remaining challenges. Their planning horizon was still too short and senior management was not routinely involved, and that limited their ability to run an Integrated Business Planning process, which was their goal.

Exhibit 3 below illustrates how Lowe's and Whirlpool modified their collaboration model during 2010 to allow them to run a fully-Integrated Business Planning process. Additional CPFR linkages have been created to help extend their planning horizon to 6 to 12 months including directly connecting the Operations Planning process with the Merchandising and Operations Planning process creating a closed-loop planning process. Notice that information flows from the top down. Driven by monthly leadership reviews with senior management, both companies achieved a more developed joint strategic planning process built around joint business objectives. These joint objectives were driven through each of their internal sales and operational planning processes. Such integrated objective planning is providing value-added direction for existing CPFR processes across the operations. In the event that Lowe's and Whirlpool need to adjust their joint plans due to changing business conditions, this model's longer planning horizon will provide the necessary forward visibility to adjust their plans with optimal impact on sales and profitability.

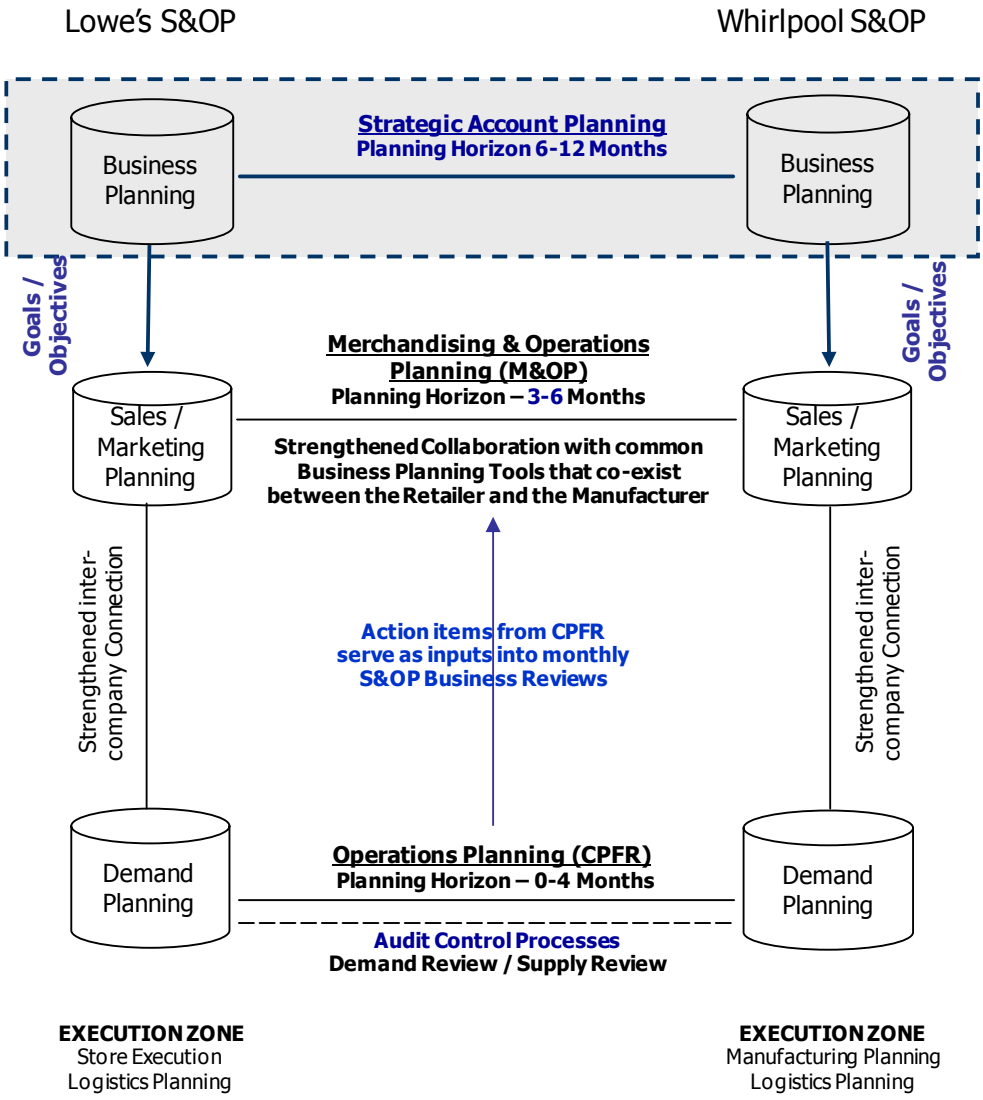


Exhibit 3: Lowe's/Whirlpool Stage III … Integrated Business Planning (2010)

Lowe's and Whirlpool's collaboration model has been evolving since 2007 and has allowed the companies to realize improvements in several key metrics. Unit sales growth over the last three years is up 12 percent while overall inventory costs are down five percent. From a customer service perspective, percent of on-time shipments has improved by three points. They are expecting additional improvements in all three metrics during 2010. Lowe's and Whirlpool believe that a primary driver of these business improvements was the creation and evolution of their collaboration model.

In addition, both companies continue to create new relationship touch points across their broader organizations. By directly connecting operating teams together, both companies are driving faster and more efficient decision making. As CPFR continues to evolve within the framework of their integrated S&OP process, the companies will continue to realize benefits of increased flexibility and improved business predictability.

6. A Maturity Model for Collaboration Linking CPFR and S&OP

We have constructed a maturity model for collaboration linking CPFR and S&OP based upon emerging industry experience, our case studies, and academic research. Our maturity model tracks levels of focus and performance for both internal and external collaborative practice. While some companies may choose to develop their capabilities in internal collaboration before addressing improved coordination with key trading partners, others may have more developed CPFR practices than internal S&OP practices. The depiction of the evolution of collaborative capabilities in the maturity matrix may not represent a best fit for the experience of all firms, but it reflects our case study data showing that firms' capabilities in internal collaboration are correlated with their capabilities in external collaboration. The VICS CPFR guidelines note that organizations with rigid silos as between sales and manufacturing for a manufacturer or between buying and inventory management for a retailer are less likely to collaborate as trading partners because their internal disciplines are not aligned. Success in internal collaborations develops organizational capacity for trust and the skill sets for managing business processes across traditional silos that are necessary for effective external collaborations.

The first level of our Collaboration Maturity Matrix describes firms that are unlinked, that is, they have minimal internal and external collaborative practices. The management level for contact between buyers and sellers at Level 1 is between expeditors and customer service representatives. The capabilities of these firms are rooted in functional excellence. The time horizon for business planning is measured in weeks and many activities are reactive. There is little or no sharing of predictive information, and orders to suppliers are unplanned. The functional connectivity between supplier and buyer at this level is limited to inter-company sales. At Level 1, the measurements and rewards for performance are based upon functional rather than enterprise goals and resources are managed at the functional level. Score carding at this level is limited. A recent research study found that 25 percent of firms are firmly entrenched in Level 1 - that is, they have no current or near term plans to pursue collaborative practices.

The second level of our matrix describes firms that have an initial or basic approach to internal and external collaborative practices. The management level for contact between buyers and sellers at Level 2 includes demand planners. These firms have a focus on key enterprise processes that operate across corporate functions. The value proposition for the firm is its capability to execute key processes effectively and efficiently, and internal teams begin to drive decision making. The planning horizon for Level 2 companies is typically no more than three months. Predictive information is shared with suppliers in the form of point-of-sales data or possibly consumer demand forecasts, but the functional connectivity between buyers and suppliers may continue to be limited to inter-company sales. Performance is measured at process and company levels and resources are managed to insure process excellence. IT systems are linked internally, but technology linkages between buyer and supplier are not significant. Internal and shared score carding starts to develop at this level, but it is historically focused. About 60 percent to 70 percent of firms find themselves working their way through Level 2.

CPFR and S&OP Maturity Matrix

Type	Unlinked	Basic	Collaborative	Strategic
Management Level	Expeditors, Customer Service Reps	Planners	Directors	Executives
Focus	Functional Orientation	Process Orientation	External Collaboration	Collaborative Innovation
Time Horizon	0 – 3 Weeks (or Now)	0 – 3 Months	6-12 Months	18 - 24 Months Rolling
Product Management	None	None	Forecast volume at launch	Collaborative Design, Ideation, Lifecycle Management
Information Shared	Orders - No predictive information sharing	Sales Forecasts, POS	Order Planning, Promotion plans	Go to Market Plans, Network Plan, Portfolio Strategies, Industry Analysis
Financial Integration	None	None	Limited	Extensive
Functional Connectivity	Inter-Company Sales	Inter-Company Sales	Sales, Demand Planning, Category Management	Executive Leadership: Finance, Demand, Supply, Marketing, Sales, CEO
Metrics	No / Limited Score carding	Fill Rate, Turns (Historically Focused)	Forecast Accuracy, Revenue (Near Term/ Historical Focus)	Market Share, Revenue, Profitability, Perfect Order Attainment (Future Focus /Gap Oriented)
Corporate Plan Integration	None	None	Marginal	Significant Plans are Interdependent and fully integrated
Technology	Phone, E-Mail	E-Mail	Spreadsheets	Enterprise class solutions that interoperate

The third level of our matrix describes firms that are beginning to engage in meaningful external collaborations. The management level for contact between buyer and seller at Level 3 includes Directors. Cross-enterprise teams become common at this level. For companies in Level 3, the business model and value proposition focus on customer-responsive activities. Collaborative goals begin to bring strategic partners' core capabilities together. The planning horizon for Level 3 companies may have moved out to 6 to 12 months for internal planning, but external collaborative planning may still have a more limited time horizon. Shared predictive information begins to be more robust at level 3 and includes promotional plans and order plans and the functional connectivity between key buyers and sellers expands to include category management. Performance measures include predictive elements such as forecast accuracy and revenue plans. IT systems begin to be linked, but the medium of exchange may be spreadsheets. Some 5 to 15 percent of firms are traversing Level 3.

The fourth level of our maturity matrix describes firms that have achieved a robust degree of internal and external collaboration. These firms have transformed their value chain into an engine of

innovation fueled by executive leadership and collaborative teams. The management level for contact between buyer and seller at Level 4 includes senior executives. Collaborative goals blur organizational borders to leverage and continuously improve complementary capabilities. The planning horizon for Level 4 companies has moved out to 18 to 24 months. Shared predictive information becomes more strategic and includes go-to-market plans and portfolio strategies. Strategic alliance partner companies share significant plans that are integrated and interdependent. Functional connectivity includes marketing and finance. Performance measures encompass market share and profitability with a future focus, what if scenario and gap analysis. Resources – information, people and technology – are proactively shared. Enterprise technology solutions support interoperability. Performance measures promote collaboration and continuous innovation throughout the network and risks and rewards are shared. The research study found that none of the interviewees had achieved this goal, nor could they identify a company that inhabits this space. Nonetheless, some managers were committed to raising their companies to Level 4. A few seem to possess the vision, energy and determination to achieve this goal.

The critical elements of success in moving from a functionally focused organization that has limited collaboration with trading partners to a strategically focused organization pursuing long range alliances with key trading partners are:

1. A clear multi-year strategic plan with key assumptions that are planned and re-planned for an extended rolling horizon in each planning cycle.

2. As the planning horizon is extended, senior managers become the process owners driving the strategies and execution of the business. At the strategic level the process owners are executives.

3. A cycle of structured business reviews clarifies the roles, responsibilities and accountabilities of all participants and empowers participants to link daily business execution to strategic goals.

4. Clear accountabilities and a discipline of getting things done builds a foundation of trust and leads to high-performing work teams that deliver competitive advantage.

5. Collaborative teams that cross functional and organizational boundaries produce more effective and efficient work.

6. Aligned incentives and shared risks and rewards drive group performance and responsiveness.

7. Enabling technology allows rapid and accurate re-planning and reconciliation.

8. Strategically focused firms collaborate with strategic alliance trading partners so that two companies are operating off one plan.

Ultimately, an Integrated Business Planning process requires that we have a plan, not just a forecast. A forecast is a prediction of a future condition or occurrence. A plan is a scheme or method of acting, doing, proceeding or making, developed in advance. A company's strategic plan is the sum of the actions a company or value chain takes to create demand and satisfy that demand in a particular market. Some organizations resist the idea of forecasting, let alone planning. They believe it is impossible to predict the future accurately, so why bother? This attitude creates an unrealistic expectation of planning. Consider Peter Drucker's view on predicting the future: "To try to make the future happen is risky; but it is a rational activity. And it is less risky than coasting along on the comfortable assumption that nothing is going to change."

"Strategic planning does not deal with future decisions. It deals with the futurity of present decisions. Decisions exist only in the present. The question that faces the strategic decision-maker is not what his organization should do tomorrow. It is, what do we have to do today to be ready for an uncertain tomorrow?" – Peter Drucker

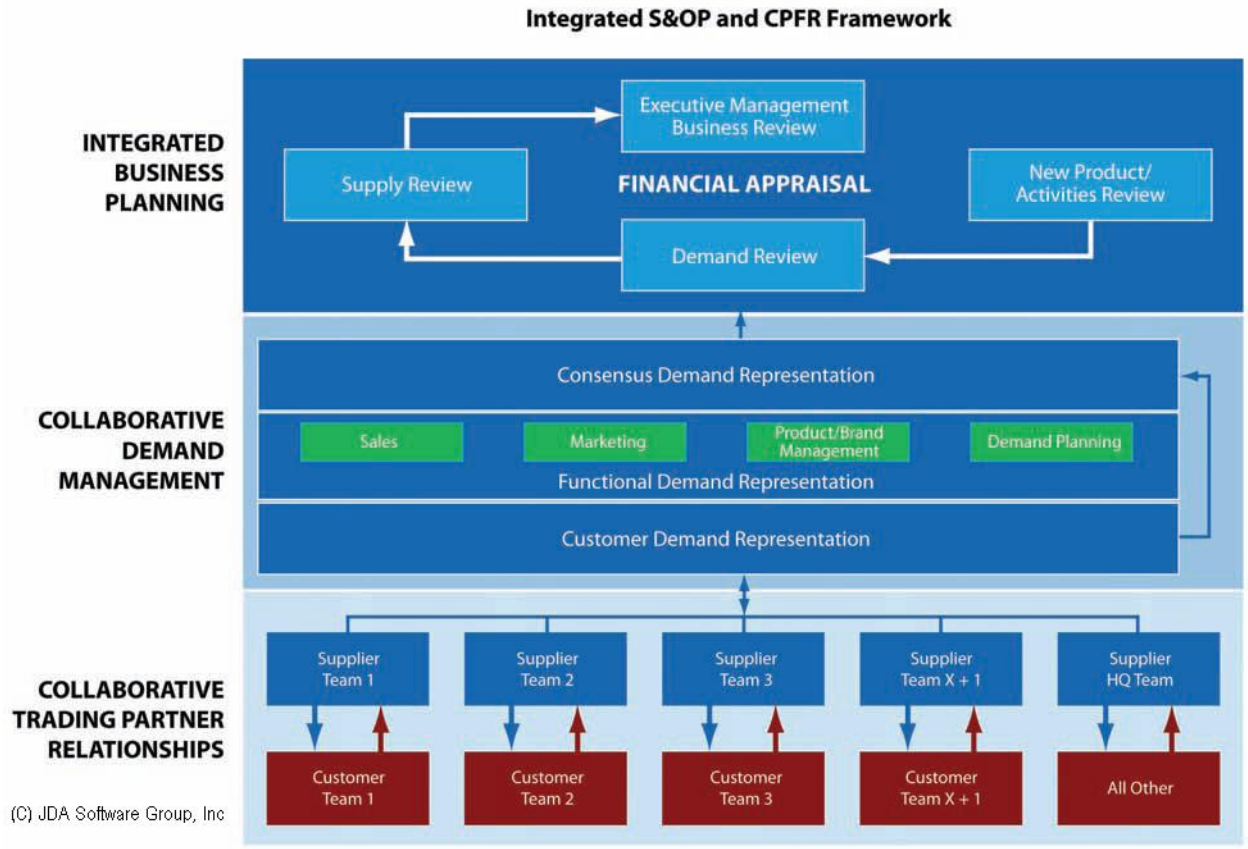
7. The Role of Technology

Technology plays a significant role in the linking of CPFR® to S&OP. While both processes can be executed manually in a pilot mode, it is important to understand the value that technology can bring to companies interested in formally linking the two processes together as part of their integrated planning framework. Most importantly, technology enables companies to scale their programs beyond a subset of planning items or trading partners. Manufacturers need critical mass demand data to shift from shipment-based consensus planning within S&OP to an orientation of planning on demand signals further down the supply chain.

Significant transformations have occurred in the marketplace that make the connection of CPFR® and S&OP more attainable and valuable, including the recent deployment of reliable time-phased order planning capabilities by several critical mass retailers. These new capabilities enable retailers and wholesale distributors to provide a view of what they plan to order beyond a single lead time. Importantly, these order projections start with the demand signal at the shelf or web portal and are translated through the supply chain network, incorporating all of the logistics constraints of product flow. Likewise, retailers and wholesale distributors benefit by having a better understanding of supply constraints when they scale their collaborative programs across a large share of their supplier base.

Technology also enables trading partners to accelerate the collaboration between internal functional stakeholders and external trading partners. Monitoring capabilities within software solutions provide alerts when plans are not synchronized against specified business rules to address issues at a faster pace than is possible with manual processes or spreadsheets. Exception management capabilities also enable companies to handle a larger scope of items as review and discussions center on planning dimensions that are outside of a pre-defined threshold. Reviewing the ongoing collaborative plan by exception removes the need to manually review every item or product family which is not cost effective and becomes unmanageable as programs scale in size.

A key role of technology in linking the process is to provide visibility and synchronization across multiple stakeholders working on coming to consensus on a single plan. The linked CPFR® to S&OP model will be one of the most cross-functional processes in the supply chain.



Consider the graphic above. Starting at the bottom, companies have established collaborative trading partner initiatives with their key customers and suppliers to build joint value by collaborating on forecasts, new product and replenishment plans. These external insights can improve the collaborative demand planning processes that are internally executed across functions within a company (See second layer of graphic – Collaborative Demand Management). After a consensus demand plan is created that incorporates the key insights from customer and supplier relationships, it becomes a key input into the long-range Integrated Business Planning process for a company to synchronize its demand, supply, new product and financial plans over a time horizon that links to corporate strategy – typically 18 to 24 months or more on a rolling basis. (See top layer of Integrated CPFR and S&OP Framework graphic.)

The stakeholders in the above figure want to see the integrated time-phased plan in their own language and at varying levels in a hierarchy. For example, demand planning teams and customer service teams may want to review data at a very low level of granularity – perhaps at the item/store-level intersection. A production planner may only be interested in family-level demand on a key resource within the plant. Senior level executives will want a financial view of the plan at higher levels of aggregation for monitoring plan against budget and plan synchronization with longer-term objectives and strategy. Technology solutions enable the varying stakeholders to view and synchronize the time-phased plan in the language and hierarchy level with which they are most comfortable and accountable.

Technology provides key stakeholders with capabilities not available in spreadsheet and manual process environments. For example, scenario planning and "what if" analysis on varying trading partner strategies can help companies better understand the trade-offs of varying CPFR® and S&OP decisions within the extended supply chain. "What-if" analysis assists companies wishing to close budget or capacity gaps over extended time horizons. When gaps are discovered, new product, promotional and/or pricing simulation can assist with closing gaps more effectively. Scenario analysis

provides a financial view of different scenarios and helps planners determine the feasibility of various alternatives. In addition, holistic S&OP solutions incorporate statistical forecasting and time-phased planning capabilities that calculate a statistical forecast, enhance the statistical forecast with functional input from stakeholders, and translate the demand plan into time-phased order plans for distribution, deployment, transportation and manufacturing planning.

Both S&OP and CPFR® have a cadence and prerequisite activities that must occur prior to the completion of later steps in the overall process. For example, within S&OP, it is common to complete a consensus demand review prior to reviewing the supply organization's capability to fulfill demand requirements. Likewise, within CPFR®, it is common to complete and review the joint business plan prior to moving to the sales forecasting and order-planning steps of the process. When companies deploy an integrated S&OP to CPFR® framework, the number of steps and coordination of activities across functions and resources will increase. Technology can play an important role by assisting companies with automated workflow to define the "To Be" process, make sure process and activity owners clearly understand the action items they are responsible for completing, and provide alerts when critical tasks are in jeopardy. Importantly, automated workflow can make sure that critical decision items (supported by scenarios) are elevated to executive stakeholders so the company can satisfy their consumers while simultaneously meeting the financial objectives of their company.

8. Conclusion

The path taken by Lowe's and Whirlpool leveraged the strengths of both the CPFR and the S&OP models. The S&OP model provided the regimen of a series of coordinated business reviews each month culminating in an executive review by those responsible to authorize the plan. The coordinated business review process of S&OP results in more than a forecast. It implies intentionality and a commitment and accountability to manage a plan of action that will deliver the desired results. All participants sign up to the plan. Also from S&OP came a commitment to push the planning horizon out in time. A longer-term planning horizon connects today's choices for the organization with the long-term strategic goals of the firm. From the CPFR model came the emphasis on engaging strategic alliance partners in a firm's planning process. Also from the CPFR model came the regimen of utilizing final customer sales to create a multi-echelon demand plan that ties a robust order plan directly to planned customer purchases. From the CPFR model also came Whirlpool's realization that they needed to expand the time horizon and intensify the frequency of communication with Lowe's to gain earlier knowledge of when Lowe's buying intentions were changing. Similarly from the CPFR model, Lowe's came to the realization that they needed to expand the time horizon and intensify the frequency of communication with Whirlpool about their supply plans, product development and go-to-market strategies. From the CPFR model both trading partners developed a commitment to deliver to promise and to invest in the relationship to generate long-term, innovative solutions. The regimens taken from both the S&OP model and the CPFR model significantly led to trust building between the trading partners.

The Lowe's and Whirlpool case study provides a clear progressive implementation model that invites imitation. These are the most significant high-level steps in the implementation: 1) focus on the relationship with a strategic alliance partner, 2) extend the time horizon out, 3) involve more functions (buying, marketing, product development) in the process, 4) drive decisions from an assumption-based plan and hold people accountable to the plan.

S&OP describes an executive management process that puts the executive team in charge, that enforces alignment and accountability around strategies and assumptions, and that provides a logical step process of planning meetings at which the participants get the work done. CPFR provides similar planning recommendations and adds a focus on engaging strategic alliance trading partners in the planning process. When these two best practice standards are employed, Integrated Business Planning delivers improved financial performance that benefits the entire value chain.

Suggestions for further reading on this subject:

- VICS, "Collaborative Planning, Forecasting and Replenishment (CPFR®): an Overview," May 2004
- VICS, "Implementing Successful Large Scale CPFR® Programs & Onboarding Trading Partners," August 2007
- George E. Palmatier and Colleen Crum, *Enterprise Sales and Operations Planning: Synchronizing Demand, Supply and Resources for Peak Performance*, J. Ross Publishing, January 2002.
- Stanley E. Fawcett, Gregory M. Magnan and Jeffrey Ogden, *Achieving World-Class Collaboration: Managing the Transformation*, CAPS Research, The Institute for Supply Management and the W.P. Carey School of Business at Arizona State University, 2007.

About VICS

Since 1986, VICS, the Voluntary Interindustry Commerce Solutions Association, has worked to improve the efficiency and effectiveness of the entire supply chain. VICS is made up of companies who have proven that a timely and accurate flow of product and information between trading partners significantly improves their competitive position. VICS' Committees continue to build on their legacy of supply chain excellence through continuous improvement of existing supply chain processes, development of new collaborative commerce business processes and effective implementation of e-Commerce standards.

LINKING CPFR AND S&OP: A ROADMAP TO INTEGRATED BUSINESS PLANNING

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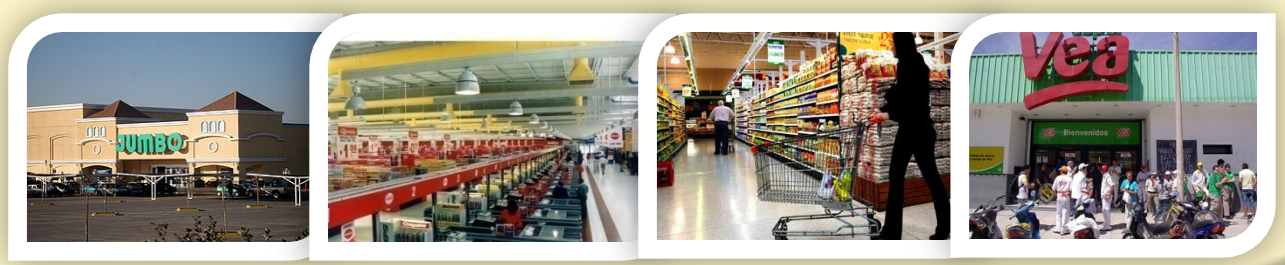
Acuerdos colaborativos



Año 2006 - El comienzo

Entorno:

- ☑ Solo Jumbo
- ☑ Entrega directa en boca

Necesidades

- ☑ Salto de valor en los procesos de abastecimiento
- ☑ Generar profundo cambio cultural en los Locales
- ☑ **Conseguir socios para el proceso**

¿con qué objetivo?

Lograr en conjunto con los Proveedores que la definición……

“A través de la colaboración entre nosotros y los Proveedores, lograr una optimización de la cadena de abastecimiento; que permita mejorar nuestra calidad de servicio al consumidor en un proceso de ganar-ganar”…….

……pueda ser llevada a la práctica en forma conjunta, simple, clara y sustentable en el tiempo.

Bases del proceso ¡¡compartido!!

☑ *Procesos automáticos de manejo de datos (Datacod; EDI; Scorecard)*

☑ *Sugerido de compra a cargo del proveedor*

☑ *Parámetros de abastecimiento alineados y compartidos*

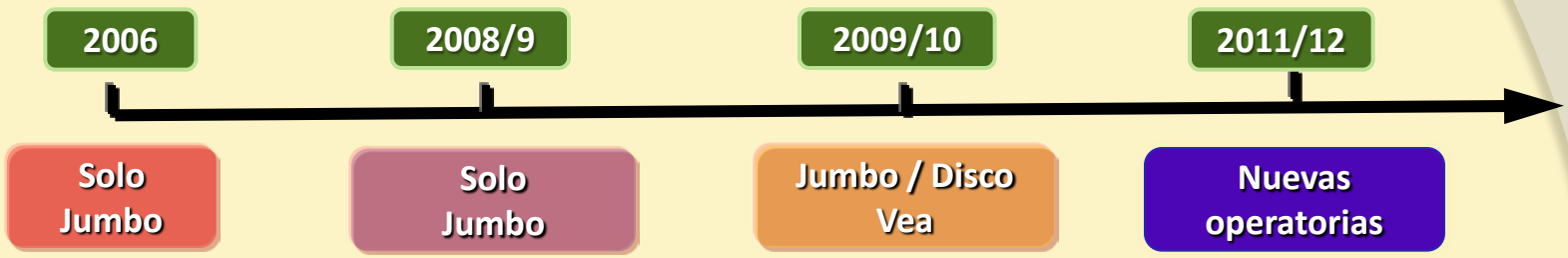
☑ *Inventarios rotativos*

☑ *Cargas de góndolas en Sistemas*

☑ *Tablero de comando con visibilidad de datos en línea*

☑ *Analistas con contacto permanente*

Evolución del proceso



Solo Jumbo	Solo Jumbo	Jumbo / Disco Vea	Nuevas operatorias
✓*Gillette, Unilever, SCJ* ✓*Entrega en boca*	✓*Centralización* ✓ *Nuevos Proveedores*	✓*Expansión a Cuyo y Córdoba* ✓*Proveedores descentralizados*	✓*Cross Docking;* ✓*XD x Unidad;* ✓*Base Transferencia;* ✓*Etc.*

De 3 Proveedores a 45 en la actualidad

Optimización constante del proceso

Proveedores Actuales

SC.Johnson: *"Mejora Continua"*

	OOS	Fill Rate	Venta Diaria	*Días Stock*
Mejora % 2010 vs 2011	*-65%*	*6%*	33%	-4%

Círculo Virtuoso de mejora continua

3M: *"Proceso de mejora"*

	OOS	Fill Rate	Venta Diaria	Sell Out	Días Stock
Mejora %	*6,5%*	*15,1%*	**73%**	**110%**	*18*
Actual	*3,5%*	*85,3%*			*83*
Pre - VMI	*10,0%*	*70,2%*			*101*

Círculo Virtuoso de mejora continua

Goodies: "Proyección de mejora"

Situación ACTUAL	
Días Stock	OOS
74	8,7%

Proyección MEJORA	
Días Stock	OOS
68	4,0%

Plan Mejora:

- ✓Comunicación más fluida;
- ✓Objetivos Comunes;
- ✓Compras más eficientes;
- ✓Pro-acción veloz y efectiva:
  - •Inv. Cíclicos
  - •Cargas en góndola
  - •Inmovilización stocks
- ✓Seguimiento de indicadores
- ✓Plan mejora continua

Círculo Virtuoso de mejora continua

En definitiva…

…luego de seis años de trabajo colaborativo, en Jumbo nos sentimos muy orgullosos de poder trabajar junto a nuestros Proveedores; en la búsqueda diaria de mejorar la cadena de abastecimiento y la satisfacción de nuestro cliente.

MUCHAS GRACIAS

Goodies: "Proyección de mejora"

Proveedor de artículos importados, generadores de imagen por su diferenciación y calidad.

Situación Actual

- *Necesidad de mayor fluidez hacia los PDV;*
- *Mayor capacidad de respuesta;*
- *Comunicación constante y optimización de pedidos;*
- *Falta de objetivos comunes.*

Plan de acción VMI

- ✓ *Definición objetivos comunes*
- ✓ *Actualización base datos*
- ✓ *Inventarios cíclicos permanentes en PDV*
- ✓ *Definición de espacios en góndola en PDV*
- ✓ *Reuniones de seguimiento mensuales.*

Conclusiones - Proyecciones

Beneficios Tangibles

- ✓*Baja Días Stock + eficiencia de inventarios*
- ✓*Mejora de Fill Entrega*
- ✓*Mejora OSA en PDV*
- ✓*Aumento del Sell Out*
- ✓*Cliente satisfecho*

Beneficios Intangibles

- ✓*Mantener comunicación fluida*
- ✓*Información homogeneizada*
- ✓*Bases de datos automáticas*
- ✓*Pautas de mejora continua comunes*
- ✓*Fuerte trabajo en PDV*
- ✓*Trabajo sinérgico entre proveedor y cadena*
- ✓*Intercambio de resultados comunes*

Collaborative Planning, Forecasting and Replenishment (CPFR®)

- An Overview
- 18 May 2004

VICS
Voluntary Interindustry Commerce Standards

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Table of Contents

Acknowledgements

This document is the result of the dedicated efforts of the VICS CPFR Advisory Team

- **Joe Andraski** VICS (Vice Chair)
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- **Hideo Funamoto** RF Square
- **Laura Golding** VICS
- **Matt Johnson** Syncra Systems
- **Rita Marzian** Metro A.G.
- **Jim McLaughlin** Gillette (Co-Chair)
- **Rich Richardson** Uniform Code Council
- **Larry Roth** Kimberly-Clark
- **Jean Schenck** Microsoft Corporation
- **Larry Smith** West Marine
- **John Sullivan** Liz Claiborne (Co-Chair)

Introduction

Collaborative Planning, Forecasting and Replenishment (CPFR®) is a business practice that combines the intelligence of multiple trading partners in the planning and fulfillment of customer demand. CPFR links sales and marketing best practices, such as category management, to supply chain planning and execution processes to increase availability while reducing inventory, transportation and logistics costs.

Since the publication of Voluntary Interindustry Commerce Standards (VICS) Association guidelines for CPFR in 1998, over 300 companies have implemented the process. Numerous case studies of CPFR projects document in-stock percentage improvements of from 2-8% for products in stores, accompanied by inventory reductions of 10-40% across the supply chain.

CPFR has also influenced industry sectors beyond retail, hard goods, apparel and consumer packaged goods (CPG). The RosettaNet Collaborative Forecasting standard for high-technology companies and the Chemical Industry Data Exchange (CIDX) Supply Chain Collaboration process are prominent examples.

The experience gained from pilot and production implementations of CPFR over the past six years has yielded many insights. A joint committee of VICS and the Efficient Consumer Response (ECR) organization revised the guidelines slightly in 2001 to incorporate global requirements, sanctioned by the Global Commerce Initiative (GCI). In 2004, the VICS CPFR committee developed a major revision of the CPFR model to integrate innovations and overcome shortcomings identified in the original process. This document introduces the updated model.

The CPFR Model

The CPFR reference model provides a general framework for the collaborative aspects of planning, forecasting and replenishment processes. Figure 1 illustrates this framework, which can be applied to many industries. A *buyer* and a *seller*, as Collaboration Participants, work together to satisfy the demands of an *end customer*, who is at the center of the model.

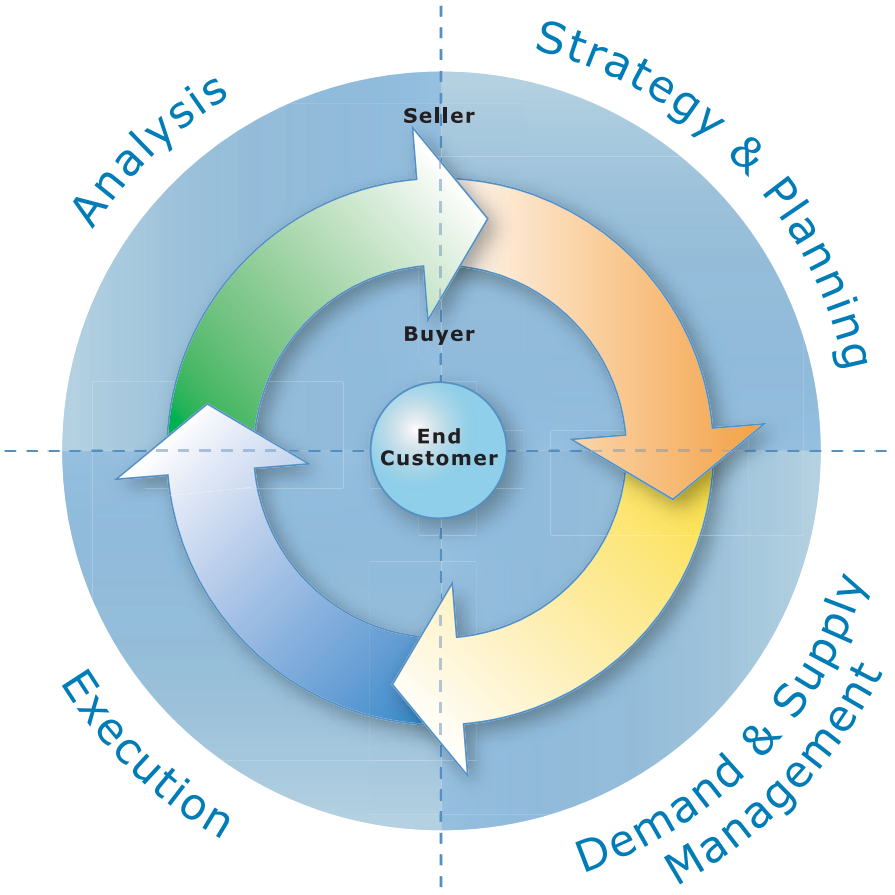


Figure 1 VICS CPFR Model – Top-level Diagram

In the retail industry, a *retailer* typically fills the buyer role, a *manufacturer* fills the seller role, and the *consumer* is the end customer. In other industry segments, such as high technology, the Collaboration Participants may differ. For example, an OEM, in the role of the buyer, may assemble electronics from component suppliers, in the role of the seller, and deliver the product (such as a storage subsystem) to the end customer – a financial services company. The remainder of this document presents CPFR in a retail industry context.

CPFR Activities

In the retail industry, the manufacturer as the seller and retailer as the buyer[1] engage in four Collaborative Activities to improve their performance:

- **Strategy & Planning** Establish the ground rules for the collaborative relationship. Determine product mix and placement, and develop event plans for the period.
- **Demand & Supply Management** Project consumer (point-of-sale) demand, as well as order and shipment requirements over the planning horizon.
- **Execution** Place orders, prepare and deliver shipments, receive and stock products on retail shelves, record sales transactions and make payments.[2]
- **Analysis** Monitor planning and execution activities for exception conditions. Aggregate results, and calculate key performance metrics. Share insights and adjust plans for continuously improved results.

While these Collaboration Activities are presented in logical order, most companies are involved in all of them at any moment in time. There is no predefined sequence of steps. Execution issues can impact strategy, and analysis can lead to adjustments in forecasts.

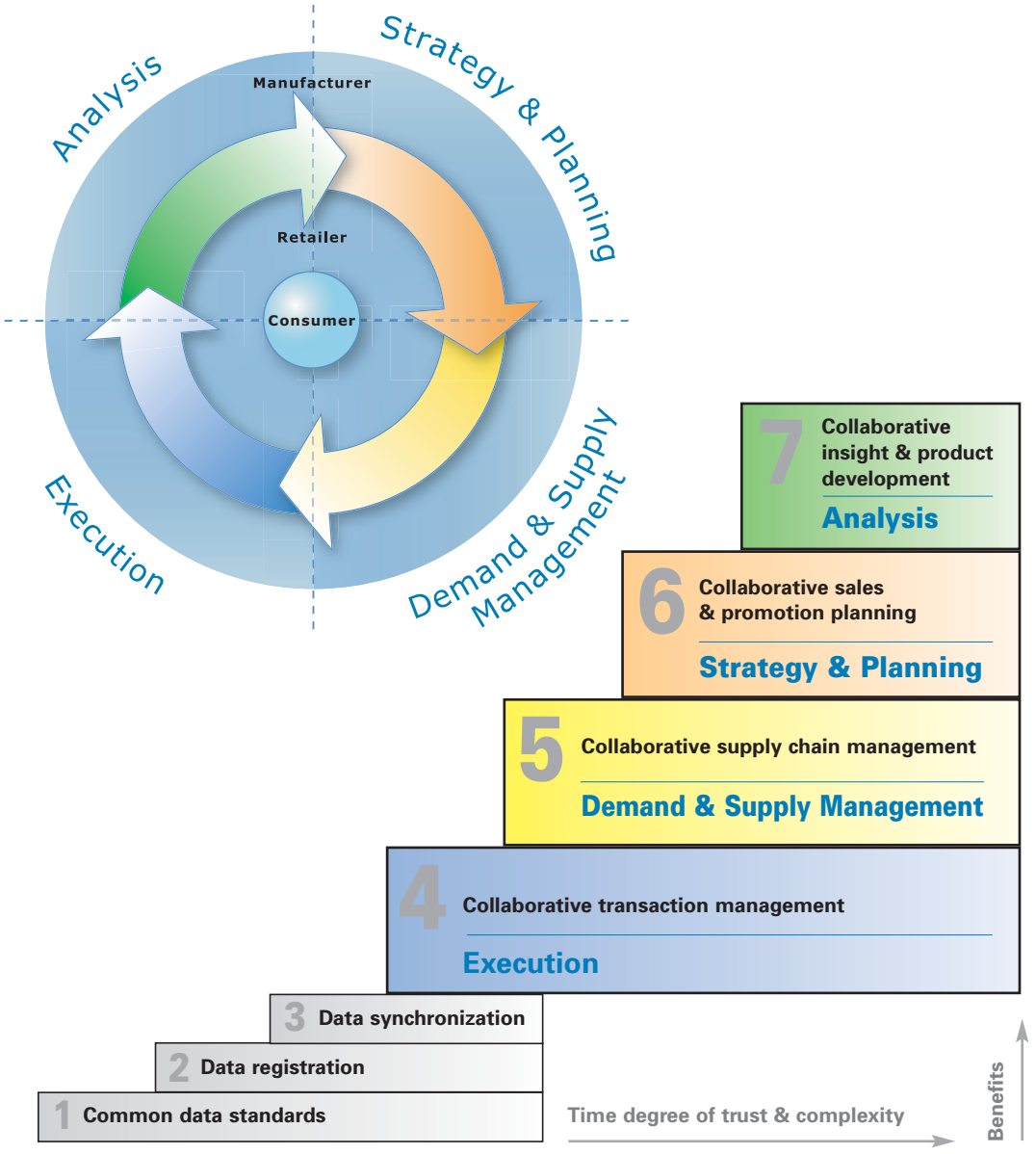
Collaboration may also focus on just a subset of the four activities (such as Strategy & Planning), while the rest of the process is performed through conventional enterprise processes. These partial implementations are sometimes called "CPFR Lite."

[1] Distributors may also be participants in the process, in the buyer role, the seller role, or both. For simplicity, the remainder of the discussion only identifies retailers and manufacturers in these roles.

[2] These execution activities are often called the "order to cash" cycle.

Positioning CPFR Activities in Collaborative Commerce

An effective CPFR program builds upon a firm foundation of synchronized product data and electronic commerce messaging standards. Figure 2 positions CPFR relative to the Collaborative Commerce Model, a roadmap developed by A.T. Kearney for the Grocery Manufacturers' Association (GMA) and the Food Marketing Institute (FMI). The four CPFR Collaboration Activities map to steps 4 through 7 in the model.



Source AT Kearney for GMA/FMI

Figure 2 Positioning CPFR Relative to the FMI/GMA Collaborative Commerce Model

CPFR Tasks

Figure 3 breaks down the CPFR model to the next level of detail – specific Collaboration Tasks. There are eight tasks – two for each of the four Collaboration Activities.

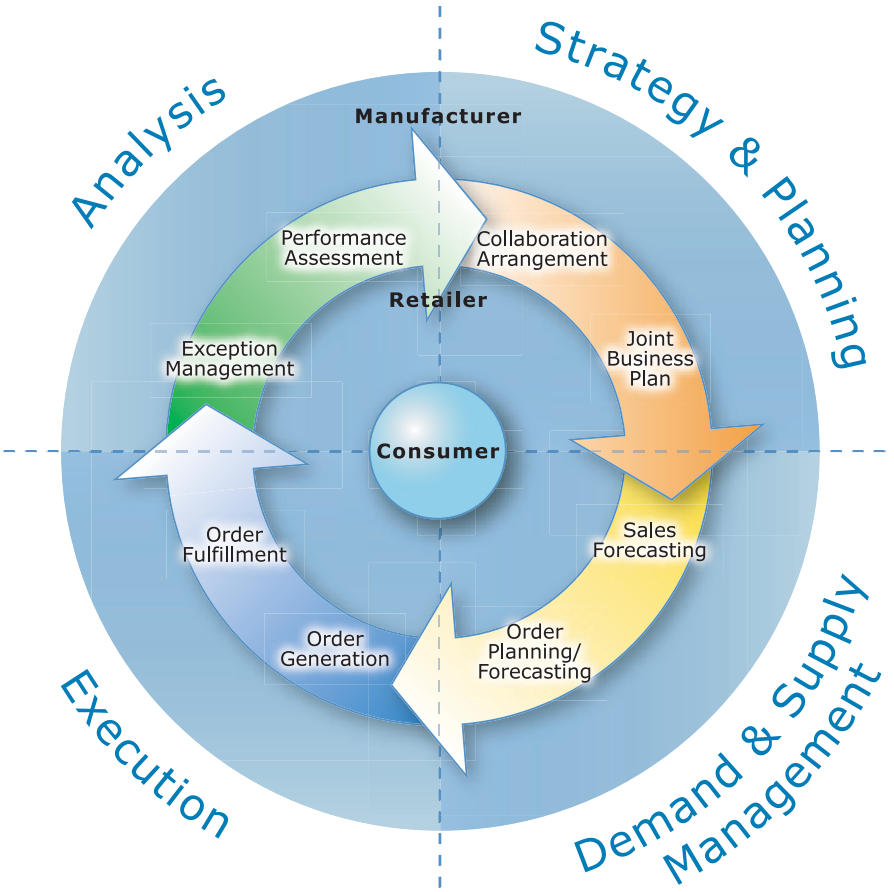


Figure 3 CPFR Model – Collaboration Tasks

Within Strategy & Planning, *Collaboration Arrangement* is the process of setting the business goals for the relationship, defining the scope of collaboration and assigning roles, responsibilities, checkpoints and escalation procedures. The *Joint Business Plan* then identifies the significant events that affect supply and demand in the planning period, such as promotions, inventory policy changes, store openings/closings, and product introductions.

Demand & Supply Management is broken into *Sales Forecasting*, which projects consumer demand at the point of sale, and *Order Planning/Forecasting*, which determines future product ordering and delivery requirements based upon the sales forecast, inventory positions, transit lead times, and other factors.

Execution consists of *Order Generation*, which transitions forecasts to firm demand, and *Order Fulfillment*, the process of producing, shipping, delivering, and stocking products for consumer purchase.

Analysis tasks include *Exception Management*, the active monitoring of planning and operations for out-of-bounds conditions, and *Performance Assessment*, the calculation of key metrics to evaluate the achievement of business goals, uncover trends or develop alternative strategies.

Retailer and Manufacturer Tasks

For each Collaboration Task in the model, there are corresponding Enterprise Tasks that personnel in the retailer and manufacturer perform. These Enterprise Tasks, as listed in Table 1, link business-to-business Collaboration Tasks to the overall operation of the enterprise.

Table 1 Retailer and Manufacturer Enterprise Tasks that Support Collaboration

Retailer Tasks	Collaboration Tasks	Manufacturer Tasks
Strategy & Planning		
Vendor Management	Collaboration Arrangement	Account Planning
Category Management	Joint Business Plan	Market Planning
Demand & Supply Management		
POS Forecasting	Sales Forecasting	Market Data Analysis
Replenishment Planning	Order Planning/Forecasting	Demand Planning
Execution		
Buying/Re-buying	Order Generation	Production & Supply Planning
Logistics/Distribution	Order Fulfillment	Logistics/Distribution
Analysis		
Store Execution	Exception Management	Execution Monitoring
Supplier Scorecard	Performance Assessment	Customer Scorecard

For example, manufacturer sales teams perform periodic strategic account planning. Retailers conduct vendor management reviews. When the trading relationship involves CPFR, the teams that are responsible for these enterprise processes come together to produce the Collaboration Arrangement.

Figure 4 depicts the CPFR model with retailer and manufacturer tasks aligned with their corresponding Collaboration Tasks.

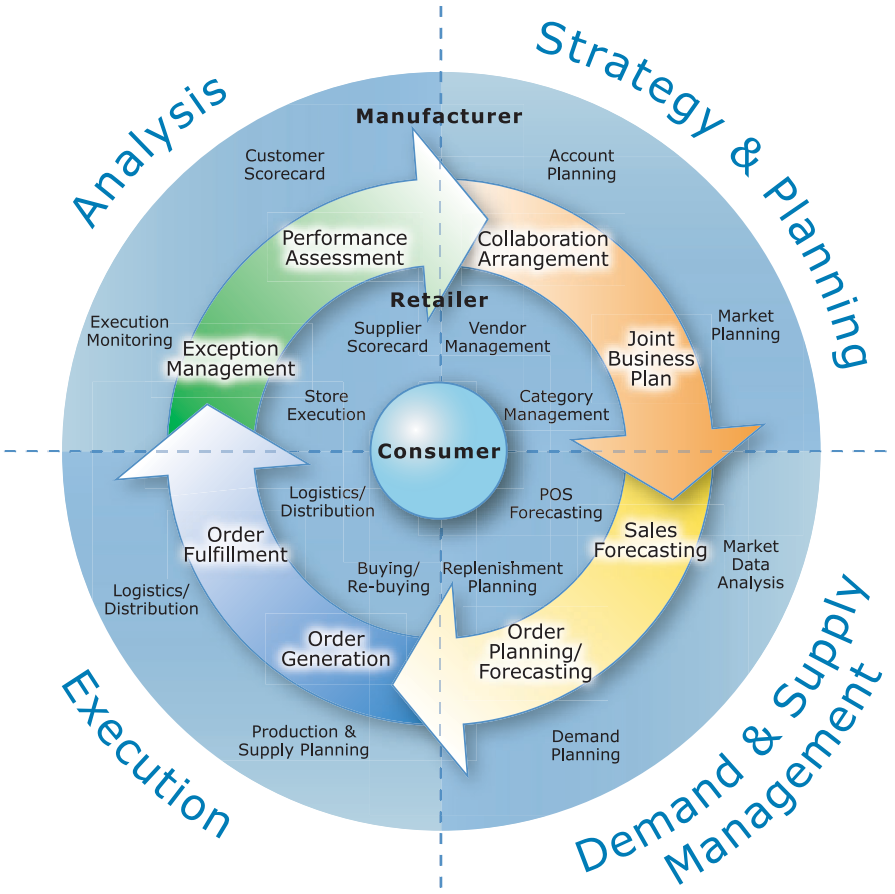


Figure 4 Manufacturer and Retailer Tasks

n-Tier Collaboration

The CPFR model can be extended to encompass more than two tiers of trading partners. N-tier collaboration is the term used to describe relationships that progress from retailers through manufacturers or distributors to suppliers. Figure 5 dramatizes n-tier collaboration by placing the supplier in an enclosing ring.

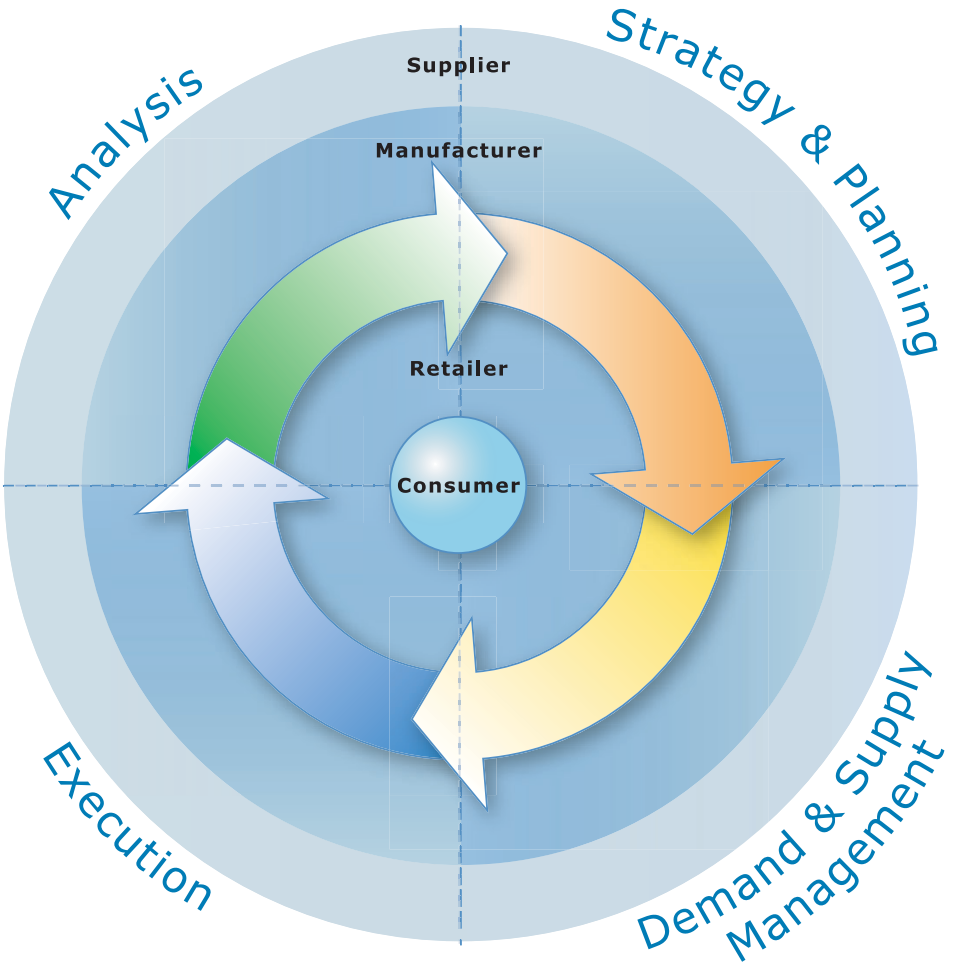


Figure 5 n-tier Collaboration

CPFR Scenarios

The CPFR reference model is designed to fit many scenarios. Any individual CPFR program must adapt the model to the particular needs of the trading relationship. Of the alternative approaches that have been documented, four specific scenarios have dominated large-scale CPFR deployments. To better assist companies who are contemplating CPFR initiatives, or are engaging trading partners in their programs, the CPFR guidelines now provide detailed descriptions of these specific scenarios.

Table 2 summarizes the four standard CPFR scenarios by their applicability to product categories and distribution methods, as well as the industry segments where they are most used.

Table 2 Specific CPFR Program Scenarios

Scenario Segments	Applicability	Typical Industry
Retail Event Collaboration	Highly-promoted channels or categories	All (except EDLP)
DC Replenishment Collaboration	Retail DC distribution	Drug chain Hardware Grocery
Store Replenishment Collaboration	Direct store delivery or retail DC-to-store distribution	Mass merchant Club store European and DSD grocery
Collaborative Assortment Planning	Apparel and seasonal goods	Department store Specialty retail

The following sections describe these scenarios in more detail. Note that scenarios are not designed to be exclusive; trading partners are free to combine scenarios if appropriate.

Retail Event Collaboration

In many retail environments, promotions and other retail events generate the largest swings in demand, and as a result, the majority of out-of-stocks, excess inventory and unplanned logistics costs. Consequently, retailers in these highly promoted channels have focused their collaboration efforts on retail events, where their financial opportunity is greatest.

The *Retail Event Collaboration* scenario of CPFR provides an industry-standard approach to this process. Trading partners develop a collaboration strategy and a joint business plan for promotions, typically on an annual or quarterly basis. They then work together to determine the impact of planned events on consumer demand and retail distribution. As events occur, promotional orders are placed, and delivery takes place. Then the event is executed in stores. Along the way, exceptions related to event planning or execution may be identified and resolved. The process concludes with an evaluation of event performance.

The *VICS Retail Event Collaboration Business Process Guide* describes this scenario in more detail.

DC Replenishment Collaboration

DC replenishment collaboration is a CPFR scenario that enhances continuous replenishment programs such as co-managed inventory or vendor-managed inventory (VMI). Conventional replenishment programs typically calculate order requirements in a short lead-time horizon. A single trading partner entity manages the entire process. By contrast, DC Replenishment Collaboration offers a joint order commitment process at multiple horizons beyond a single lead-time. DC Replenishment Collaboration enables manufacturers to adopt a make-to-demand policy, while allowing retailers to minimize their inventory liability and stock-out risk. Trading partners typically collaborate on DC withdrawal forecasts, manufacturer-to-retailer DC forecasts, or both. The output of collaboration is an order or series of orders that are committed over a time horizon. The buyer and seller support order generation with their buying/re-buying and production and supply planning organizations respectively.

DC Replenishment Collaboration extends the replenishment process beyond the buyer's DC and seller's finished goods warehouse to encompass all the nodes in the supply chain – from the store shelf to raw materials. The benefits attributed to DC replenishment collaboration include:

- Greater visibility to improve replenishment accuracy
- Out-of-stock reduction
- Overstock reduction
- Production capacity aligned to meet customer demand

DC replenishment collaboration also seeks to increase the efficiency of the flow of product between trading partners, especially in supply chains that have long supply cycles, heavy, bulky or regulated goods, or complex transportation requirements. Product flow benefits include optimized order quantities that minimize the operations costs of picking, loading and unloading and product put-away.

Store Replenishment Collaboration

As with DC Replenishment, conventional store replenishment programs are executed by a single trading partner over a single lead-time horizon. Many retailers are now sharing more responsibility for the store-level availability of products via store-level collaboration initiatives. Store Replenishment Collaboration leverages the insights of both the retailer and manufacturer to drive an optimal replenishment plan. Trading partners typically collaborate on store POS forecasts. Other collaboration points that influence replenishment include:

- Store clustering
- Replenishment parameters
- Presentation stock
- Assortment optimization

The output of Store Replenishment Collaboration is an order or series of orders that are committed over a time horizon. The buyer and seller support order generation with their replenishment planning/buying re-buying and production and supply planning organizations respectively.

Store collaboration is focused on the closest link to the consumer and consequently directly influences shelf availability. The benefits attributed to Store Replenishment Collaboration include greater visibility to consumer take-away, improved replenishment accuracy, improved in-stocks, overstock reduction, and improved promotional execution. Trading partners have a direct view of how consumers are responding to new products, existing shelf distribution and promotional take-away. Manufacturers and upstream suppliers leverage this information throughout the supply chain for improved operational execution.

Collaborative Assortment Planning

Some industries, such as fashion apparel and accessories, follow a seasonal rhythm of demand. As a result, collaborative planning in this market segment typically has a horizon of a single season and is performed at seasonal intervals.

The nature of fashion and other short lifecycle products implies that there is minimal discrete historical data to utilize in the planning cycle. Hence, there is a heavy dependence on collaborative interpretation of industry trends, consumer tastes and macroeconomic conditions.

Collaborative Assortment Planning is a process that allows retailers and suppliers to better coordinate their merchandising decisions to drive maximum profitability for both constituencies. Trading partners jointly develop an assortment plan, which contains both visual representations of the product and financial models. The output of this collaboration process is a planned purchase order containing item commitments at the UPC (style/color/size) level for each delivery point in the retailer's enterprise. The planned order is electronically shared in advance of a market or show, where sample products are viewed by the buyer and seller and final merchandising decisions are made.

Implementing CPFR

Collaboration Roles

Collaborative Planning, Forecasting and Replenishment is always superimposed on an existing demand planning and replenishment process. CPFR enhances and is compatible with both vendor-managed (VMI) and conventional ordering processes. The distinguishing factor in these alternatives is who takes the lead in three Collaboration Tasks: sales forecasting, order planning/forecasting, and order generation. Table 3 compares these alternatives.

Table 3 Collaboration Role Alternatives

Alternatives	Sales Forecasting	Order Planning /Forecasting	Order Generation
Option A (Conventional Order Mgmt)	Retailer	Retailer	Retailer
Option B (Supplier-Managed Inventory)	Retailer	Manufacturer	Manufacturer
Option C (Co-Managed Inventory)	Retailer	Retailer	Manufacturer
Option D (Retail VMI)	Manufacturer	Manufacturer	Manufacturer

Organizational Implications

CPFR establishes guidelines for enterprises to integrate their planning processes across corporate boundaries. However, business-to-business programs must be based upon more fundamental collaborative processes *within* each enterprise. For some companies, achieving internal collaboration can pose a bigger challenge than working with customers or suppliers.

Figure 6 illustrates the organizational roles that manage CPFR activities on each side of the trading relationship. Resources responsible for merchandize planning develop category plans, which the manufacturer's demand planning personnel incorporate in their forecasts. Sales representatives and buyers negotiate deals and other promotional events. Replenishment personnel determine store and/or DC order quantities, and manufacturer customer service and logistics personnel mobilize the resources to fulfill them. In many cases, these discussions and business transactions take place independently, without coordination among enterprise organizations.

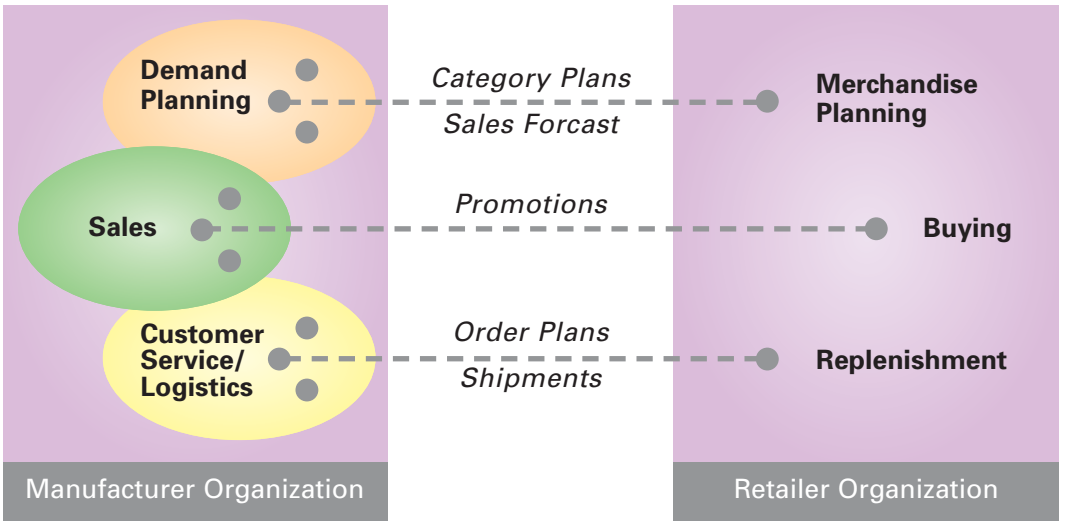


Figure 6 Conventional Organizational Roles

Effective business-to-business collaboration demands a reorientation of resources – from functional silos to an interdisciplinary focus. For major accounts, many manufacturers establish cross-functional, customer-specific teams. Logistics, planning and financial resources are co-located with sales personnel to provide a single face to the customer. For smaller accounts, cross-functional teams are assigned to a geography or channel. Figure 7 dramatizes the desired collaborative organizational structure.

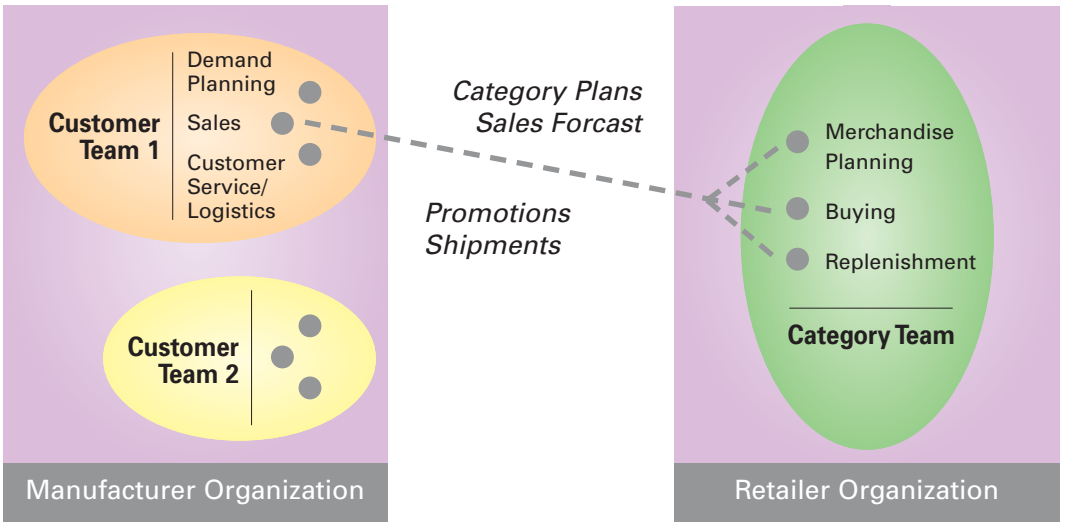


Figure 7 Collaborative Organizational Structure

Retailers face an even bigger organizational challenge. It is not usually practical for planning, buying and replenishment personnel to reorganize around suppliers, but they sometimes can create cross-functional category teams. The biggest change may come within the replenishment organization itself: the store and DC replenishment functions must carefully orchestrate distribution to reduce out-of-stocks and chain-wide inventory balances, so some retailers have combined their store and DC replenishment teams to reduce disconnects.

Appendix A is a self-assessment tool that companies can use to evaluate their readiness for rolling out CPFR programs.

CPFR Technology

The CPFR process does not fundamentally depend upon technology. However, specialized technology can make the process more scalable. Many CPFR solutions have been developed to facilitate the process, including:

- Sharing forecasts and historical data
- Automating the collaboration arrangement and joint business plan
- Evaluating exception conditions
- Enabling revisions and commentary

A CPFR solution must be integrated with the enterprise systems of record that produce and consume demand and supply chain data, as illustrated in Figure 8.

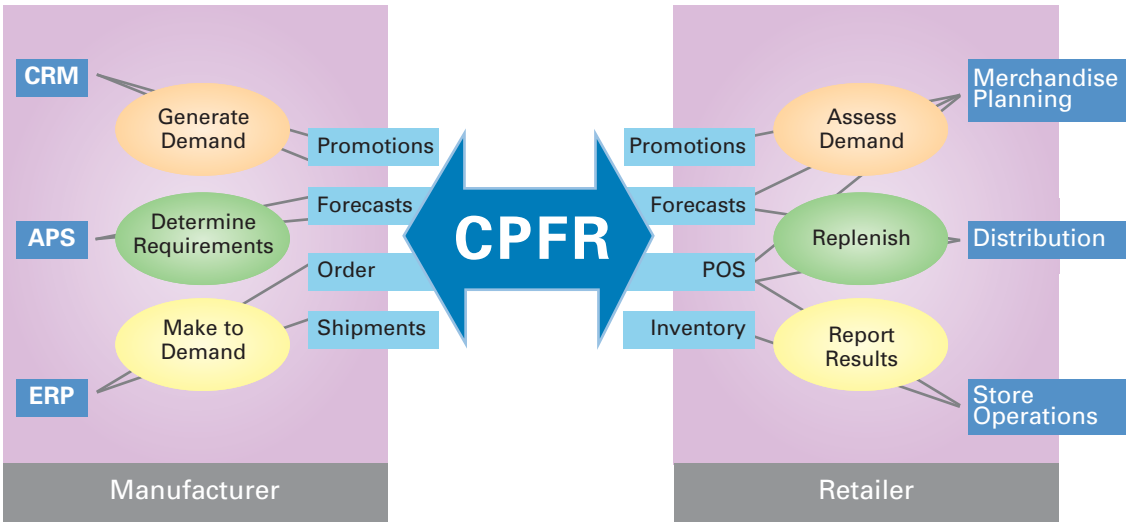


Figure 8 The Role of CPFR Technology in Integrating Retailer and Manufacturer Processes

CPFR technology can be deployed as a shared solution, or as a peer-to-peer network of interoperating CPFR applications. The shared solution can be operated as part of a retailer's or manufacturer's extranet, or hosted by an exchange or other third party. Peer-to-peer communications may flow directly between manufacturers and suppliers, or via proxies (trading-partner-to-exchange or exchange-to-exchange).

CPFR-Related Standards

A core CPFR objective is to establish a common process that can be used not only between two trading partners, but across an entire marketplace. To achieve this objective, CPFR builds upon EAN.UCC standards for item identification, location identification, and electronic commerce message interchange.

Trading partners can use EDI messages, XML messages, or both to facilitate CPFR communications, as shown in Table 4. The EAN.UCC Global Business Message Standard provides the most comprehensive coverage of the process, with a suite of eleven CPFR-specific XML message types. While there are no EDI mappings for some CPFR messages, some projects use XML to "fill in" where EDI messages have gaps.

Table 4 Mapping Electronic Commerce Message Standards to CPFR

Message	EAN.UCC XML	UN/EDIFACT	ANSI ASC X12 EDI
Retail Event	Retail Event	N/A	Promotional Announcement (889)
Sales Forecast / Order Plan	Forecast / Forecast Response	DELFOR	Planning Schedule with Release Capability (830)
Exception	Exception Notification	N/A	N/A
Purchase Order	Purchase Order	ORDERS	Purchase Order (850) or Grocery Order (875)
Despatch Advice	Despatch Advice	DESADV	Advance Ship Notice (856)
Product Activity	Product Activity	SLSRPT	Product Activity (852)
Performance History	Performance History	N/A	N/A

Conclusion

In the six years since its publication, the CPFR model has demonstrated benefits for hundreds of manufacturer and retailer companies. It has also influenced trading relationships in the high technology, chemical and automotive industries. The model has now been revised to incorporate the lessons of experience. The original "nine steps" of CPFR have been refined to a set of eight Collaboration Tasks that are easier to understand, and yet more comprehensive than the original model. Companies have greater flexibility in selecting the focus for their efforts, as well as the sequence of collaboration tasks. Specific CPFR scenarios (such as Retail Event Collaboration) give retailers and manufacturers detailed business process guidance based on successful projects.

For More Information

Readers who seek more information about CPFR have a number of resources at their disposal:

- The *VICS CPFR Committee* meets four times a year. Committee members share the results of their standards development activities, present case studies, and gather in small teams to outline future work. Meetings also offer a valuable opportunity for retailers, manufacturers, solution providers and consultants to network with experienced CPFR practitioners.
- The *VICS CPFR website* (www.cpfr.org) includes case studies, meeting minutes, presentations and white papers, as well as the CPFR guidelines themselves.
- The Uniform Code Council (UCC) Solutions Center at solutionscenter.uc-council.org provides UCC members with access to the EDI and XML technical standards for CPFR messaging.
- The *Collaborative Commerce Standards Institute (CCSI)* is an organization that provides executive education and research on collaborative commerce standards, including CPFR. Courses are held on an annual schedule. See the CCSI website (www.ccsi1.org) for additional details.
- Major trade shows, such as the Retail Systems-VICS Collaborative Commerce Conference, UConnect and ECR Europe offer collaborative commerce tracks with CPFR presentations."

Appendix A CPFR® Rollout Readiness Self-Assessment

Place a check mark next to each statement that is true for your business, then sum up the marks to determine your total score.

A Organizational Readiness

- ❑ **1.** The value proposition for collaboration is well understood in the company.
- ❑ **2.** There is an agreed company strategy and an adequate budget for collaboration initiatives.
- ❑ **3.** Collaboration process owners have been assigned and empowered.
- ❑ **4.** Affected organizations have performance goals and incentives aligned with collaboration objectives.

B Retailer Process Readiness

(Retailers rate themselves and suppliers rate their customers' readiness in this section.)

- ❑ **1.** Details of promotions and other retail events are captured and kept up to date so that consumer demand impact can be correlated with them.
- ❑ **2.** Consumer demand is forecasted based on historical sales and planned promotional activities.
- ❑ **3.** Ordering processes are driven from forecasted consumer demand.
- ❑ **4.** Feedback from collaboration can be incorporated in future plans and forecasts.

C Supplier Readiness

(Suppliers rate themselves and retailers rate their suppliers' readiness in this section.)

- ❑ **1.** Supplier sales and service/logistics personnel coordinate their response to customer issues and opportunities.
- ❑ **2.** Collaboration (consumer POS) data can be effectively used in the supplier's sales and operations planning (S&OP) process.
- ❑ **3.** A unified approach to collaboration allows the supplier's insights to reflect the demands of multiple customers.

D Technology Readiness

- ❑ **1.** Internet data transport (EDIINT AS2) capabilities are production-ready.
- ❑ **2.** XML translation capabilities for B2B initiatives are production-ready.
- ❑ **3.** Enterprise planning applications have supported interfaces for collaboration data (import and export).
- ❑ **4.** A scalable CPFR solution is available.

_____ Total Score

Evaluating Your Score

- If you scored 11-15
  - Your strategic trading partners should all be live in collaboration.
  - You should be driving CPFR best practices in the industry.
- If you scored 6-10
  - You are ready to begin rollouts, starting with demand/supply visibility.
  - Address key gaps to enhance ROI of collaboration.
- If you scored 0-5
  - You should act quickly to close gaps, starting with organizational ones.
  - Work to sustain momentum in existing collaboration relationships, to gain experience that can be applied to future efforts.

Suggestions for Improving Your Score

- Enhancing Organizational Readiness
  - Conduct a collaboration ROI assessment
  - Engage in strategy and program development
- Enhancing Retailer Process Readiness
  - Invest in event visibility and demand forecasting technology/processes
  - Enable continuous replenishment processes
- Enhancing Supplier Readiness
  - Enhance S&OP practices to leverage customer-specific POS forecast data
  - Implement supplier scorecards
- Enhancing Technology Readiness
  - Implement Internet data transport, translation and mapping technologies
  - Establish interoperability among installed enterprise solutions and CPFR programs

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BUSINESS FORECASTING

2010–2011 | WINTER VOLUME 29 | ISSUE 4

4 INTEGRATED BUSINESS PLANNING: A Roadmap to Linking S&OP and CPFR

Larry Smith | Joseph C. Andraski | Stanley E. Fawcett

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LETTER FROM THE EDITOR

Over the last three decades, market dynamics have significantly changed and so have the business processes. The market is now driven by demand—not supply. Gone are the days when manufacturers produced what they thought they could sell. If something was left over, marketing made it go away. If there was a shortage of something, consumers would wait. Now consumers have neither the patience nor the loyalty. If you don't have what they want and at the price they want, someone else will. All this has resulted from the increasing competition fueled by the proliferation of products and channels of distribution, the shorter product life cycles, and the increasing globalization. To meet this challenge both suppliers and retailers responded by taking their forecasting process to a next level.

What was needed was the ability to predict more accurately and quickly the changes in the marketplace, develop good actionable plans, and then execute them without delay. To achieve this, the forecasting process evolved from Silo Forecasting to Consensus Forecasting to Sales and Operations Planning (S&OP) and now to Collaborative Planning, Forecasting and Replenishment (CPFR). Forecasts could not improve in a silo set-up because each function prepared them just for its own use, and thus were not accountable. As such, the input of other functions was neither solicited nor incorporated into forecasts. This led to the development of Consensus Forecasting, where one function prepared statistical forecasts, and then presented them at monthly consensus meetings attended by all the functions. At the meeting, they collectively reviewed the forecasts and, where necessary, overlaid judgment on them. This improved the forecasts, but the functions did not have the authority to act on them. By the time a person with authority got around to it, it was often too late. This led to the development of S&OP, where people with authority participated not only in reviewing forecasts and action plans but also in executing whatever was decided.

What matters most to manufacturers is not how much their customers would order but how much their end-consumers would buy. For that they needed a close collaboration with their customers, which is the theme of this issue. Larry Lapide gives the history of CPFR. Ron Burnette shows how CPFR has evolved over time and how the spirit of collaboration has spread in other areas both within and outside the enterprise. The article by Larry Smith, Joseph Andraski, and Stanley Fawcett shows how we can further improve CPFR by linking it with S&OP; in addition, it outlines key success factors in the implementation of CPFR. Fred Baumann, in his article, shows how manufacturers with CPFR can benefit by forecasting at the shelf level instead of at the shipment or order level. From that they can capture best the variations in demand resulting not only from the consumer demand but also from a change in the customer's order policy. Nikhil Sagar shares his experience in implementing and running a CPFR process both from the perspective of a manufacturer and a customer, and lessons learned.

Collaboration is the wave of the future for running a successful business. I hope this special issue on CPFR will show you how and why, as well as the best way to execute it.

Happy Forecasting!

Chaman L. Jain, Editor
St. John's University | Jainc@Stjohns.edu

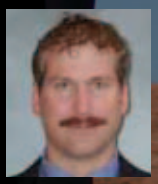
INTEGRATED BUSINESS PLANNING: A Roadmap to Linking S&OP and CPFR

By Larry Smith, Joseph C. Andraski, and Stanley E. Fawcett

EXECUTIVE SUMMARY | **Uncertainty and poor information reduce decision-making effectiveness, increase costs, and lower customer service. Yet, much of the information we need to make decisions is known by someone else in our firm or supply chain. This article shows that when two programs—Sales and Operations Planning (S&OP) and Collaborative Planning, Forecasting and Replenishment (CPFR)—are integrated, they provide the information we need for decision making. Key success factors and performance outcomes are also discussed.**

LARRY SMITH | Mr. Smith is Senior Vice President of Merchandise Planning and Replenishment at West Marine. For the past 10 years, he has directed the Planning and Merchandising Operations functions at West Marine creating a cutting-edge and scalable supplier collaboration (CPFR) program. He is a frequent speaker at major industry conferences. He is a member of the Board of Directors of the Voluntary Interindustry Commerce Solutions Association (VICS) and Co-Chair of the VICS CPFR Committee, which is responsible for leading one of the most successful interindustry supply chain collaboration initiatives. He is also a member of the Editorial Advisory Board of *Supply Chain Management Review.*

JOSEPH C. ANDRASKI | Mr. Andraski is the President and CEO of VICS (Voluntary Interindustry Commerce Solutions Association), which provides a forum for parties to develop supply chain processes and technology. Prior to joining VICS, he held several positions with Nabisco Foods, Inc., including Vice President of Supply Chain Management, Vice President of Customer Marketing, and Vice President of National Sales. He has been active with Grocery Manufacturers Association, where he serves as the Chair for the Logistics Committee, and was a member of the Efficient Consumer Response Operating Committee. He recently created and launched the VICS CPFR® Certification Program.



STANLEY E. FAWCETT | Dr. Fawcett is a visiting distinguished professor of logistics and supply chain management at Georgia Southern University. His current teaching and research interests focus on collaborative business model design and global supply chain strategy. He has published over 100 articles and six books on topics related to supply chain, such as supply chain design, information technology as a collaboration enabler, leading a change through learning, performance measurement, and trust. He is the co-editor-in-chief of the *Journal of Business Logistics*. He has taught executive development programs in Asia, Europe, and North and South America.

Companies succeed when they identify customer needs, develop a customer-appropriate value proposition, and build world-class processes to deliver to promise. Success emerges as companies position the right product at the right place at the right time, and at the lowest cost possible. Managing the materials flow effectively and efficiently is absolutely vital. Specifically, superb demand management supported by accurate forecasting, excellent inventory management, agile production, and responsive supply management underlie a company's ability to efficiently create high levels of customer value. The implication is clear: Now, more than ever, the various functions within a firm as well as the diverse companies within a supply chain must work in concert to create the value customers demand. Unfortunately, translating need and desire into a coordinated action is far easier said than done. Most companies still operate with limited coordination and collaboration. Internal functions are disconnected, trust in one another is limited, and different operating groups use their own forecasts to manage their operations. The time horizon for business execution visibility is short term so that day-to-day operations are not connected to strategic goals. Looking upstream, suppliers have only a limited view of future demand requirements. Customers can provide information that suppliers would otherwise have to forecast. Likewise, focusing downstream, the retailer lacks category or market insights that could be provided by key suppliers. Indeed, world-class suppliers work with a variety of customers—typically across multiple industries. As a result, they are exposed to a number of market-sensing opportunities and may possess unique industry and macro-economic insight. Each trading partner forecasts its needs independently and marches to its own beat. Past supply chain outages drive both suppliers and buyers to build buffer stocks to avoid risk, and without a shared view of consumer purchases, the planning systems of both buyer and supplier tend to build inventories based upon historical shipment variability that is not related to consumer buying patterns. As a result, the buyer-seller relationship is often adversarial.

What is needed is a mechanism to orchestrate the value-added activities of the firm and the supply chain. Fortunately, two well-established process management models exist to help companies begin to sing from the same sheet of music. Sales and Operations Planning (S&OP) is a proven process model designed to knock down the walls that impede communication and coordination among decision makers within a firm. Collaborative Planning, Forecasting and Replenishment (CPFR) is a time-tested approach to bridging the gaps that limit collaboration across organizational boundaries. By linking S&OP and CPFR practices, it is possible to establish synchronized operations across an entire supply chain. The following sections briefly introduce S&OP and CPFR, describe core goals, discuss key implementation steps, and define essential execution requirements. A case study that demonstrates the viability of bringing S&OP and CPFR together is then shared.

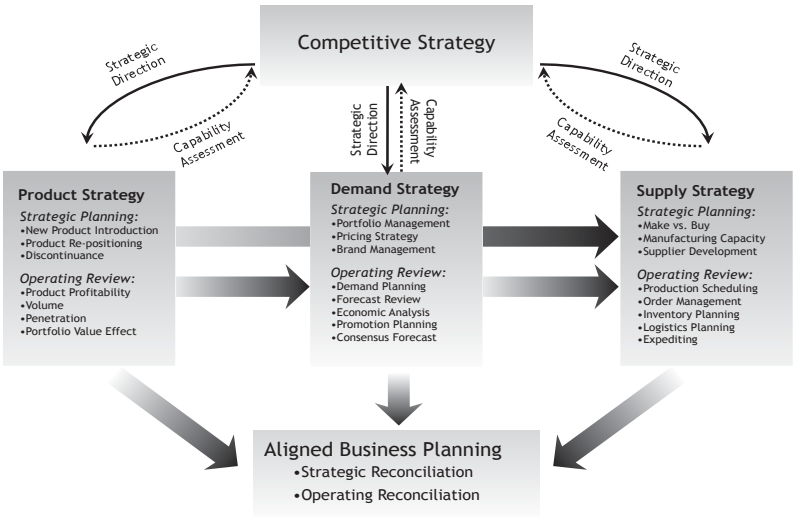
SALES AND OPERATIONS PLANNING

S&OP emerged in the 1980s as a production-planning tool. The goal was to create the visibility necessary to balance supply with demand. The key was to set up a process that would bring the customer-facing and supply-facing sides of the organization together on a frequent and regular basis. In essence, by increasing communication, all of the essential value-added activities of the firm could agree on and work off a single set of numbers. This "one-forecast" planning leads to greater responsiveness, less waste, and less finger pointing.

Over time, S&OP has become more strategic, involving higher-level executives and incorporating a greater understanding of the external environment into the planning process. Although the goal remains to establish a consensus "one-forecast" plan, more emphasis is placed on understanding the business environment, supporting the corporate strategy, and synchronizing the value-added activities of the firm. In essence, S&OP seeks to shape, not just forecast, demand. By marshaling the entire organization's resources to meet customer needs, competitive advantage is sought. Palmatier and Crum (2010) define S&OP as follows:

Sales & Operations Planning is a process led by senior management that evaluates and revises time-phased projections for demand, supply, product and portfolio changes, strategic projects, and the resulting financial plans. This is done on a monthly basis, typically over a 24-month rolling planning horizon. It is a decision-making process that realigns the tactical plans for all business functions in all geographies to support the company's business goals and targets. A primary objective of S&OP is to reach consensus on a single operating plan, to which executives of the management team hold themselves accountable and allocate the critical resources of people, equipment, inventory, materials, time, and money to most effectively satisfy customers in a

Figure 1 | The S&OP Process



profitable way.

Figure 1 exemplifies the basic S&OP planning process. An ongoing scanning-and-planning process develops a corporate strategy to leverage core organizational capabilities to achieve a competitive advantage. The defined strategy then directs the continued development of product, demand, and supply strategies and operations. Within this context, five monthly review meetings take place to make sure that everyone is working in a coordinated way to support overall corporate goals and create an integrated operating plan that effectively aligns supply and demand.

1. Product Management Review | Ensures that the product plan, including new products and assortment plans as well as other strategic growth activities of the company, is on track for time, cost, demand, supply, and resources, and that all of these plans are in alignment with strategic goals. The Product Management Review assures the health of the firm's innovation pipeline and informs demand and supply planning.

2. Demand Review | Achieves consensus on a valid, unbiased demand plan that will become the request for product from the end-to-end Supply Chain as well as integrated financials and gap management activities within and across trading partners. The output of the Demand Review is an unbiased demand plan over a rolling 18-to-24-month horizon with assumptions, risks, and opportunities identified as well as action plans to address gaps in annual and strategic business objectives.

3. Supply Review | Ensures supply capability—including manufacturing capacity, supply chain inventory, transportation, and logistics/DC capacity —and resources can meet the demand plan, customer service, quality, and cost objectives. The Supply Review makes certain that contingency plans are identified to address additional demand risks and opportunities identified by the Demand Review.

4. Integrated Reconciliation | Identifies and resolves key imbalances identified in the Product, Demand, or Supply Reviews. Additionally, this step utilizes the Demand and Supply plans to develop the integrated financial plan including revenue, margin, and other P&L, balance sheet, and cash flow effects.

5. Management Business Review | Approves the consolidated operational and financial plan from the prior steps and makes decisions regarding imbalances that were identified, but not resolved during the monthly cycle. The Management Business Review aligns plans and decisions with the defined business strategies.

To summarize, S&OP is an alignment process that gets all the different functions of an organization to pull in the same direction. S&OP helps an organization move from a traditional annual planning process to a continuous re-planning process. Importantly, improved decision making leads to impressive operating improvements (see Table 1), as well as more trust and better relationships in the leadership team. Over time, working together to solve problems and build capabilities becomes easier and yields new competitive opportunities.

Table 1 | Performance Improvements Attributable to S&OP

Benefits	Range of Percent Improvement
Increased Forecast Accuracy	18-25%
Increased Sales Revenue	10-15%
Improved On-Time Delivery	10-50%
Reduced Inventory	18-46%
Reduced Safety Stock	11-45%
Increased Productivity	30-45%

Source: Palmatier, George and Colleen Crum. ***Transitioning from S&OP to Integrated Business Planning.*** Oliver Wright White Paper Series, 2010.

COLLABORATIVE PLANNING, FORECASTING AND REPLENISHMENT

CPFR recognizes that planning and execution can be improved further when trading partners work together. Just as S&OP strives to get all of the functional areas within a firm to pull together to achieve the company's strategic goals, CPFR argues that sharing information across organizational lines can help align supply chain efforts to improve value creation. For example, in S&OP, a central goal is to develop a consensus, that is, a one-number forecast of demand to estimate as accurately as possible what the company can expect to sell to customers over a specified time period. CPFR argues that someone already knows, with much greater certainty, what a company's sales will be. That someone is the customer. If customers are willing to share their purchase plans, including promotion schedules and other drivers of variation, suppliers can dramatically improve their forecasts and operating efficiencies.

The CPFR process, which is depicted in Figure 2, focuses on combining the collaborative intelligence of multiple trading partners in the planning and fulfillment of customer demand. CPFR links sales and marketing best practices, such as category management, to supply chain planning and execution processes to increase availability while reducing inventory, transportation, and logistics costs.

In the retail industry variant of the model shown above, the manufacturer as the seller and retailer as the buyer engage in four collaborative activities to improve their performance. The model also applies to upstream buyer and seller relationships.

1. Strategy & Planning | Establish the ground rules for the collaborative relationship. Determine product mix and placement, and develop event plans for the period.

2. Demand & Supply Management | Project consumer (point-of-sale) demand, as well as order and shipment requirements over the planning horizon.

3. Execution | Place orders, prepare and deliver shipments, receive and stock products on retail shelves, record sales transactions, and make payments.

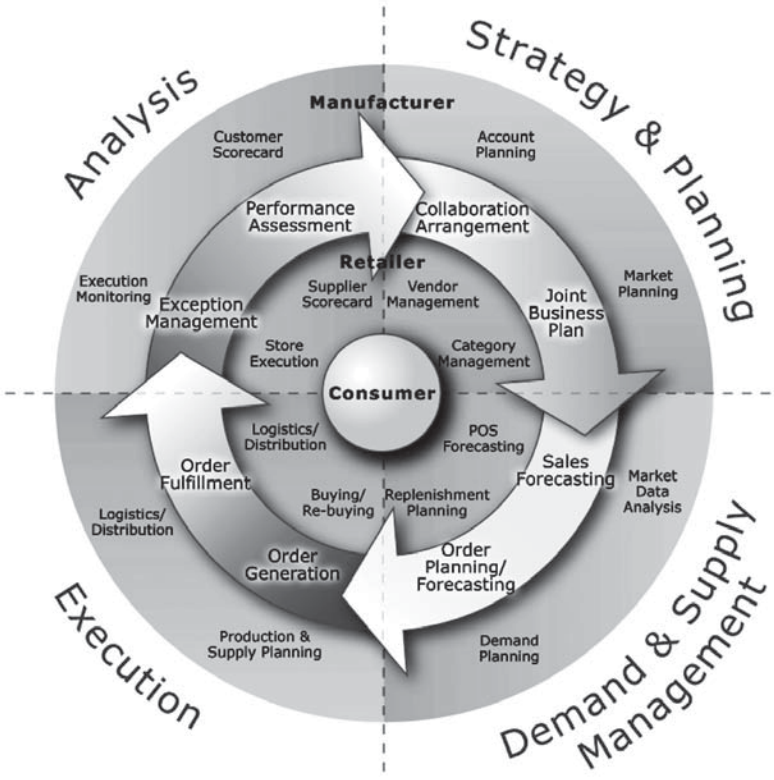
4. Analysis | Monitor planning and execution activities for exception conditions caused by unforeseen environmental or market risk events, supply chain disruptions, or a performance breakdown. Aggregate results and calculate key performance metrics. Share insights and adjust plans for continuously improved results.

While these collaboration activities are presented in logical order, most companies are involved in all of them at any moment in time. There is no predefined sequence of steps. For example, execution issues can impact strategy, and analysis can lead to adjustments in forecasts.

Like S&OP programs, CPFR programs have clear calendars of weekly, monthly, quarterly, and annual activities that govern the collaborative planning and execution cycle. These planning meetings involve managers at all levels of the trading partner organizations. Specific responsibilities are described below.

Executive Level | Semi-annual or

Figure 2 | The CPFR Process



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annual meetings of the trading partners' senior management team define and redefine strategies, align organizational goals, allocate resources, and establish appropriate high-level measures to document progress. Similarly, executives are tasked with evaluating continuous improvement opportunities and seeking renewal opportunities.

Tactical Level | Quarterly planning meetings involve process owners and focus on defining/updating specific tactics and deliverables for the collaborative initiative. More frequent, routine communications (i.e., weekly or monthly collaborative meetings or conference calls) review the results of initiatives and manage exceptions. These meetings can be relatively brief or extended, depending on the nature of the initiative being discussed as well as the importance of the specific trading partner relationship. Suggested agenda items include 1) reviewing current metrics, 2) managing team initiatives, 3) resolving supply constraints, and 4) reviewing changes to the demand forecast caused by promotional planning, assortment planning, or any other changes to the demand plan.

To summarize, CPFR is an alignment process that promotes information sharing among trading partners to enhance collaborative planning. CPFR helps trading partners move from reactive management to proactive planning and execution. Importantly, improved collaboration leads to impressive operating improvements (see Table 2) as well as more trust and better relationships among trading partners. Over time, working together to solve problems and build capabilities enables partners to expand their efforts beyond seeking improved efficiencies to unlocking value through collaborative innovation.

Table 2 | Performance Improvements Attributable to CPFR

Benefits	Range of Percent Improvement
Improved Forecast Accuracy	20-30%
Increased Sales	10-30%
Increased Margin Rate	2-6%
Improved On-Time Delivery	5-10%
Increased In-Stocks	2-7%
Decreased Inventory	10-30%
Decreased Operating and Logistics Costs	10-28%

Source: VICS CPFR Case Studies and Collaborative Commerce Award Winners.

LINKING S&OP AND CPFR: A CASE STUDY

Because resources are scarce, developing a large-scale CPFR program dictates distinct levels of relationship intensity. Although a CPFR lead partner may catalyze change among many of its trading partners, only a limited number of intense collaborations with key trading partners can be pursued. Among these strategic alliance partnerships, the opportunity exists to link S&OP and CPFR to create a collaborative, synchronized end-to-end supply chain.

Both S&OP and CPFR are best practice collaboration processes. S&OP is a strategic management process that aligns centers of functional excellence in a coordinated internal collaborative process. CPFR is a strategic management process that aligns the complementary capabilities of trading partners in a coordinated external collaborative process. By linking S&OP and CPFR, a two-stage, integrated business planning process emerges. Stage I involves the creation of go-to-market strategies that are informed by customer insight. Stage II focuses on executing the operational plan to create the promised value. This combination—knowing exactly what value to create as well as being able to actually manage core processes to create it—is the source of a winning competitive strategy. The Lowe's Home Improvement engagement with Whirlpool reveals how such an integrated business plan can be developed.

Until recently, most of the communication between Lowe's and Whirlpool was through their Merchandising and Sales organizations. The relationship was often strained. Each firm made decisions that adversely affected the other—the adverse affect often came from a lack of communication rather than an inherent conflict. For example, Whirlpool introduced a new line of white goods. As Whirlpool team leaders described the new product line and its launch, both Lowe's and Whirlpool were excited to get the line into the store as quickly as possible. When the launch date was set, the team leader from Lowe's asked, "When did you know you were going to bring this line to the market?" The answer was, "We've known for months." If Whirlpool had shared this information, the two companies could have avoided the need to negotiate the split for tens of thousands of dollars of liquidation costs required to sell out the existing line. A little trust and shared

Figure 3 | Lowe's/Whirlpool Stage I: Traditional Demand/Supply Planning (2007-2008)

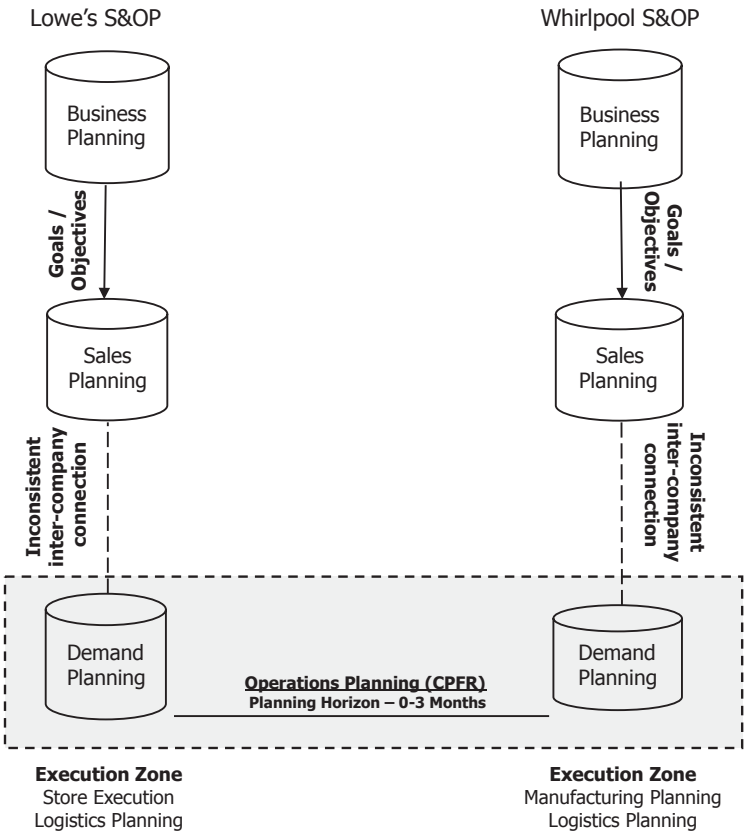
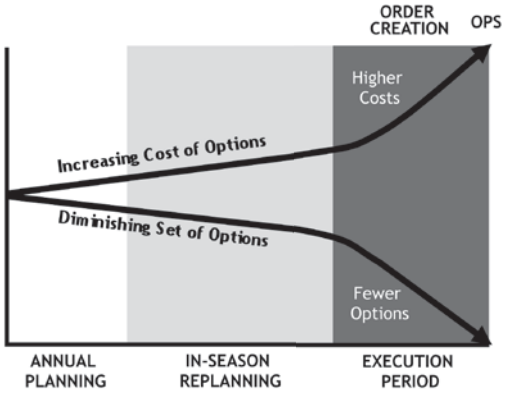


Figure 4 | Visibility's Influence



information would have saved both companies aggravation and money. Thus, three years ago, the two firms embarked on a multi-phase collaborative journey. Today, Lowe's and Whirlpool are in the early stages of running an Integrated Business Planning process.

Stage I began with a focus on collaborative demand planning, concentrating primarily on order forecasting, with limited discussion of sell-through or inventory. Figure 3 shows the linkage between Lowe's and Whirlpool at the operational level. Collaborative discussions were focused on the near-term horizon, typically less than three months, with very little consistent mid-range or long-term planning. Demand planning activities were more heavily dependent upon statistical forecasting, with very little enrichment applied to the forecast. Limited visibility to each company's go-to-market plan created disconnects in objectives. The two companies basically had independent business plans driving their individual sales and operational plans.

After stabilizing the collaborative demand planning process, Lowe's and Whirlpool moved more towards supply planning. Lowe's initial focus was on recognizing the capabilities and limitations of Whirlpool's manufacturing divisions. Both companies worked to develop an understanding of each other's required target inventory levels and the importance of product transition planning relative to inventory. Their supply chain organizations became actively involved with the sales and merchandising organizations. Importantly, collaboration at this stage typically existed at the operational level of the organizations and was focused on demand and supply planning at the item level, with forecasts reviewed between forecast teams. Because higher-level collaboration was sporadic and inconsistent, sales plans seldom accounted for future advertising, promotion, and product-transition initiatives. Operational planning in each organization was therefore based on inaccurate demand forecasts. Without visibility, performance targets were easily missed and the costs of resolution were high. For example, Lowe's used the process as shown in Figure 4 to emphasize the importance of increasing forward visibility. Consider progressing through a season from left to right, going from the most forward-looking plans to a more tactical execution. The far right was the point in time where the product was moving and was close to landing at the stores to be sold. When moving through the year, changes occurred, causing disruptions. But as forward visibility increases, more options are available and the costs of those options are lower. Higher-level CPFR linkages improve visibility and relationship

Figure 5 | Lowe's/Whirlpool Stage II: Integrated Sales & Operations Planning (2008-2009)

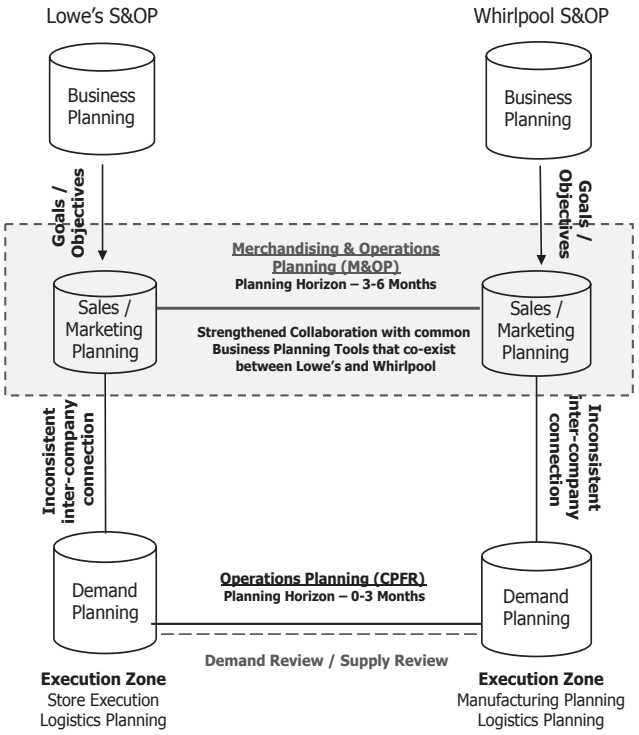
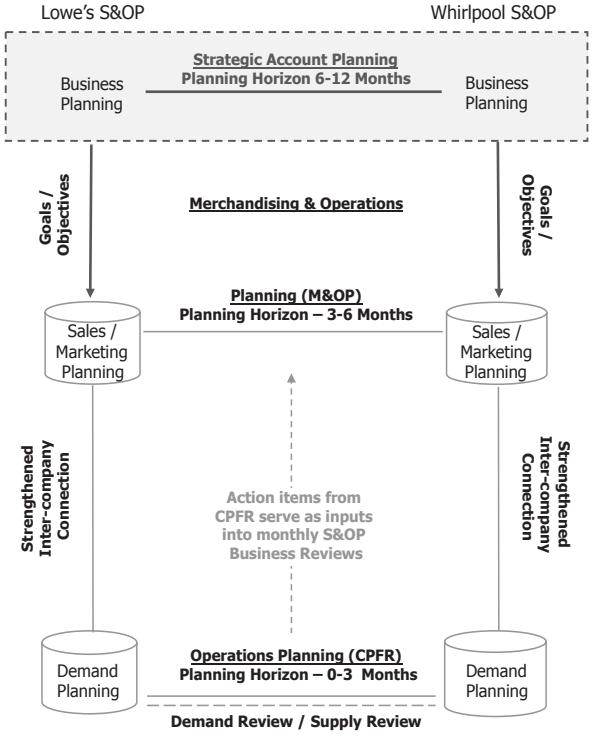


Figure 6 | Lowe's/Whirlpool Stage III: Integrated Business Planning (2010)



performance.

Stage II, which is depicted in Figure 5, began in late 2008 as Lowe's and Whirlpool made the decision to merge their collaboration effort with Whirlpool's S&OP process to provide the infrastructure necessary to extend the planning horizon beyond three months. Lowe's and Whirlpool established collaboration linkages at the sales and marketing mid-management levels. By turning their attention to sales and marketing planning, the two companies started to "change the game." Structured demand and supply reviews drove business planning towards a single set of aligned forecasts and sales plans. Through strengthened product management review, they were able to focus collaboration on promotions, product-launches, and special-event planning. An integrated promotional calendar for each product category emerged. Greater forward visibility allowed the two companies to extend their planning horizon to three to six months.

Lowe's and Whirlpool both realized another benefit from implementing a joint sales and marketing planning process. Their own internal collaboration efforts improved substantially due to the discipline required to run a joint sales and marketing planning process. Yet, despite the improvements, several challenges remained. The planning horizon was still too short and senior management was not routinely involved, which limited their ability to achieve their goal of an Integrated Business Planning process. Stage III, shown in Figure 6, was initiated to address these shortfalls. New CPFR linkages were created to extend their planning horizon to 6 to 12 months including directly connecting the Operations Planning process with the Merchandising and Operations Planning process to create a closed-loop planning process.

Notice that information flows from the top down. Driven by monthly leadership reviews with senior management, both companies achieved a more developed joint strategic planning process built around joint business objectives. These joint objectives were driven through each of their internal sales and operational planning processes. Such integrated, objective planning is providing value-added direction for existing CPFR processes across the operations. In the event that Lowe's and Whirlpool need to adjust their joint plans due to changing business conditions, this model of longer planning horizon will provide the necessary forward visibility

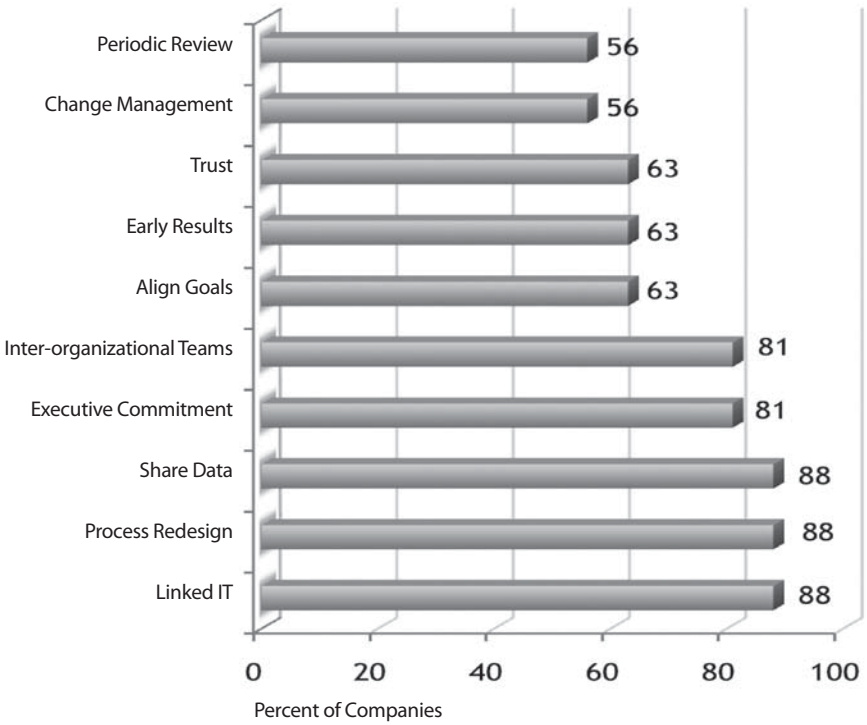
to adjust their plans with optimal impact on sales and profitability. Importantly, the journey to integrated business planning has helped Lowe's and Whirlpool to realize improvements in several key metrics. Unit sales growth over the last three years is up 12% while overall inventory costs are down 5%. On-time shipments have improved by three points. Moreover, both companies are driving faster, more efficient decision making, which improves flexibility and business predictability. Lowe's and Whirlpool believe that a primary driver of these business improvements was the creation and evolution of their collaborative model.

REQUIREMENTS FOR INTEGRATED BUSINESS PLANNING

To better understand the essential elements of a successful integrated business planning initiative, we evaluated nomination forms for the VICS Collaboration Innovation Award for the years 2005-2010.

We focused on the 16 award finalists/ winners. These companies represent leading-edge collaborative practice. Figure 7 identifies the ten most frequently emphasized keys to success. Not surprisingly, linked information technology was the most frequently cited requirement (88%). Both CPFR and S&OP are data intensive. Success requires that accurate, relevant, and timely data be available to decision makers at both partner companies. Linked systems reduce data-entry error and assure timely sharing. Somewhat more surprising was the equal emphasis placed on a cultural predisposition to share relevant information (88%). If managers insist on hoarding sensitive information to maintain power or avoid vulnerability, linked systems will not enable better decision making. Process redesign was also emphasized by 88 percent of the nominating managers. Clearly, a core goal of both CPFR and S&OP is to build a better decision-making process, which will require a new approach to doing business. Managers who are not willing to change the way they work will not be able to implement CPFR or S&OP. The integrated business planning and its benefits will always remain out of reach.

Figure 7 | Requirements for a Successful Journey to Integrated Business Planning



As the Lowe's/Whirlpool case demonstrated, executive commitment and involvement (81%) as well as strong inter-organizational teams (81%) are a prerequisite to success. Only when senior executives are involved and committed to the process, only then needed resources will be dedicated to the implementation initiative. Likewise, only senior managers have the clout to remove the physical and cultural constraints that impede balancing supply and demand. Effective teams are the mechanism for working across organizational boundaries and ultimately getting the work done. Both the executive leadership and the inter-organizational teams are responsible for identifying appropriate initiative objectives, aligning their own organizational goals to these team goals, and then putting in place the measures needed to communicate and

promote the desired behavior. When goal alignment (63%) is overlooked, early successes seldom endure beyond the first disruption.

The remaining four requirements focus on the change management process (56%). Early results (63%) are needed to generate broader organizational buy-in. As early wins are turned into success stories and disseminated throughout the organization, momentum for collaborative planning builds. People like to be associated with a winning team. Similarly, trust (63%) is needed for managers to be willing to share sensitive information, experiment with new working styles, and accept the risks associated with both of these behaviors. Ultimately, although significant investments in information technology are needed to support integrated business planning, behavioral issues will determine an initiative's success.

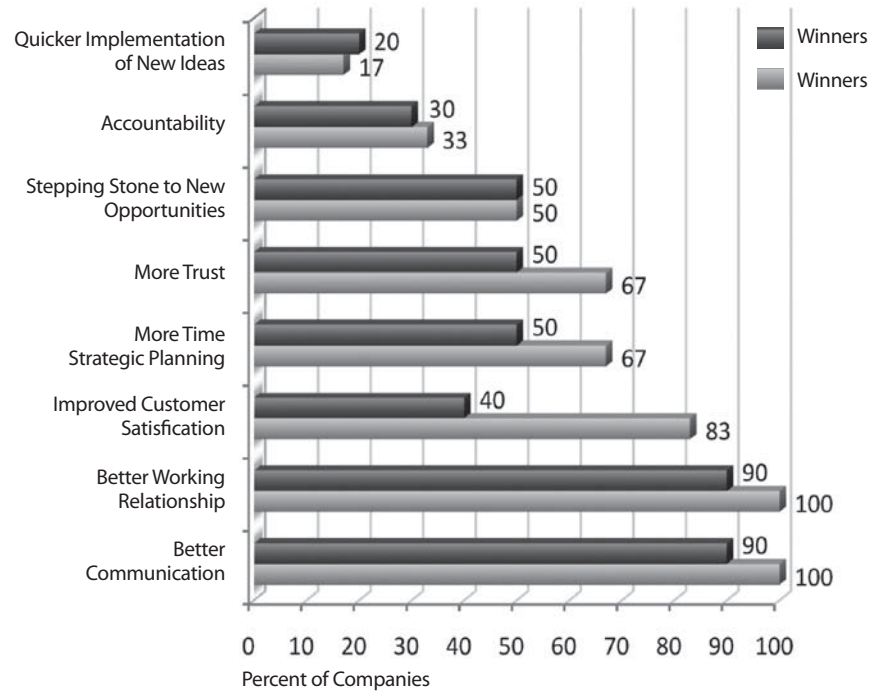
Finally, management needs to establish a periodic review process (56%) to identify, evaluate, and resolve problems that arise throughout the transformation process. An appropriate scorecard is invaluable to this process. The bottom line: Moving towards integrated business planning is a journey that requires frequent checks against milestones as well as rapid course corrections. Periodic reviews are the signposts that guide the journey.

LEVERAGING THE BENEFITS FOR COMPETITIVE SUCCESS

Both CPFR and S&OP offer impressive market and operating benefits. When the two initiatives are linked, a new, collaborative approach to designing and operating the business can emerge. Indeed, the process of implementing and validating CPFR and S&OP programs yields many intangible benefits that promote a new way of working together to create customer value.

Figure 8 summarizes some of the intangible benefits that were documented by the VICS Collaboration Innovation nominees. Specifically, we compare the intangible benefits achieved by award winners to those achieved by the finalist companies. Both groups achieve impressive benefits in the areas of better communication and improved working relationships. However, the award winners achieved substantially better serendipitous benefits in the areas of improved customer satisfaction, more time for strategic planning, and greater trust. Finally, about half of all the nominees reported that their CPFR initiatives had opened doors to new collaborative opportunities that extend beyond the operating realm of information sharing, forecasting, and inventory management. Such benefits are vital to keeping senior executives engaged in the process. As companies work together to solve the problems encountered in the CPFR and/or S&OP implementation processes, they build the skills and the relationships to pursue collaborative innovation. Unlocking this potential will lead to new venues for sustainable competitive advantage. *info@ibf.org*

Figure 8 | Intangible Benefits Associated with the Journey to Integrated Business Planning



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Delivering the Plan: The CPFR and S&OP Continuum

By Nikhil Sagar

EXECUTIVE SUMMARY | The integration and synthesis of multiple stakeholder insights is the most powerful enabler to improving retail demand forecasts today. A great deal of progress has been made in the retail and manufacturing industry around the development of internal and external collaboration processes using the S&OP and CPFR frameworks. The opportunity now is to effectively link these processes together to make the whole greater than the sum of its parts which is the main objective of this article.

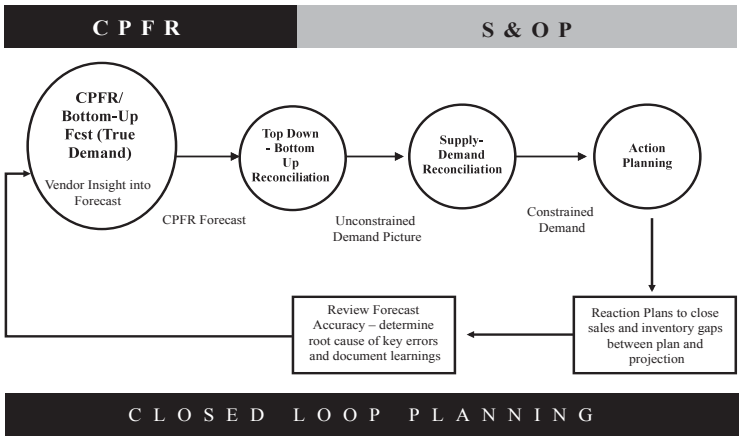
NIKHIL SAGAR | Nikhil Sagar is Vice President, Retail Inventory Management for OfficeMax Incorporated. In his five and a half years in this role, he has been responsible for the development of multiple CPFR relationships across key suppliers in the Office Supplies industry. He has also been instrumental in laying the foundation for a multi-tiered internal collaboration process to manage inventory risks using the S&OP framework of consensus forecasting and supply-demand matching. His previous career experience includes five years at Whirlpool Corporation where, as Senior Project Manager of Supply Chain Strategy, he played a central role in the design and implementation of the CPFR processes with their top five retail trade partners. In this role, he was also responsible for the development and implementation of a formal S&OP process. He holds an MBA from Michigan State University and an engineering undergraduate degree from Marine Engineering and Research Institute, Calcutta, India.

The key priority or shall we say "the Holy Grail" of supply chain is moving product to the right place at the right time. Eventually this means getting it to the end customer when he or she wants it. However, there could be multiple steps prior to this point that rely on the same priority—getting product to the right place at the right time;. from a vendor's factory to their regional distribution center (DC),.from their DC to a retailer's DC, and from a retailer's DC to their stores. The key imperative to achieving this priority of "right place at the right time" is having a good forecast.

Possible Disconnects in a Non-Collaborative Space: A Retail Example

And so, while the priority of "right place at the right time" ultimately ends with the end customer, the key imperative of forecasting naturally begins with this same end customer! It then propagates upstream through all the same layers. The translation of this end customer demand into distribution center demand forecasts and eventually a factory demand plan is driven by the inventory policy of the individual layer being forecasted. Consider for a moment how many different possible breaking points there are in achieving this priority. Let's talk a little bit about these multiple forecast points.

Figure 1 | Closing the Gap



- The KBU (Key Business Units) forecast is built at the business unit level. It is typically based on executive goals and shareholder expectations. It incorporates market share targets and industry level forecasts. It includes the impact of channel expansion or contraction, new business ventures, etc.
- Merchant forecasts, built at the product category level, are based on category goals, and incorporate market share goals and industry forecast. However, these forecasts now start to layer in the specific impacts of promotional plans, new product introduction plans, marketing strategies, etc.
- Store Sales Forecasts are built at the SKU/Week/Location level and are typically referred to as bottom-up forecasts. These are the most objective reflection of the impact of currently planned activity. They are statistically developed reflecting seasonality, trend, and the projected impact of promotional activity based on past-observed lifts.
- The retailer's order forecast is the projection of planned purchases from a manufacturer. They are developed at the SKU/Week/DC level and are naturally limited to only the SKUs the retailer carries for that vendor. This forecast is based on the store sales forecast after netting against current inventory levels and open orders. The need is based on pre-determined inventory parameters, which in turn are designed to support a targeted service level against assumed levels of demand variability over a known supply lead time and must also account for a projected degree of supply variability at each node being planned.

The multiple retail forecasting nodes just described work in similar sequence within the manufacturing framework. The retail planned orders serve as a key input into the manufacturers' bottom- up demand forecast when aggregated with the demand of all other customers the manufacturer may have. This aggregated demand forecast must be netted against the existing available products to commit inventory to determine a production plan. This production plan in turn must be passed on to the manufacturers' suppliers. In addition to this bottom-up demand forecast, the manufacturer has a KBU and Merchant Forecast. Now that we've discussed the various nodes in some detail, consider again the importance of aligning these various nodes across the supply chain.

Cost of Disconnects

There is a significant cost associated with each of the possible disconnects we've talked about. The costs primarily fall into two areas: Net Income and Working Capital. When the mismatch results in an out of stock, there is usually a lost sale. With destination retailers where customers often know what they want before they enter the store, product availability becomes an even higher priority. Here there is a risk of losing not only the present sale but also of losing the customer for good. Other hits to net income may come from transportation inefficiencies through multiple shipments/expedited shipments of partially filled orders. On the flip side, when forecasts are missed, overstocks result in a negative impact to working capital. Further, ongoing issues with forecast performance may cause safety stock levels to be raised to maintain customer service, further eroding working capital productivity.

Collaboration Framework

So, there is clearly a high cost associated with a non-collaborative planning environment. Figure 1 outlines a recommended integration loop between the various stages of collaboration within and between organizations. The key elements of the sequence are as follows: Develop a statistical forecast, enrich it with qualitative insights from trading partners through the CPFR process, then reconcile it against the top-down merchant/financial forecast and adjust it to incorporate macro insights from those functions. The next step would be to constrain the forecast to reflect any supply issues that might limit sales. After that, this "realistic" forecast should be compared to the financial plan for the period/quarter to identify gaps/shortcomings. Action

plans should then be developed to close these gaps based on a firm understanding of their causes. For instance, if the root cause is a loss of market share due to lack of competitiveness on price, the decision might be to adjust prices or introduce promotions to drive up demand. Last but by no means least, it is very important to close the loop on this process. This means comparing the sales forecast to actual performance and understanding the reasons for any significant errors so that they may be fixed and the learning incorporated into the next planning cycle.

As the CPFR and S&OP processes represent external and internal collaborative planning, respectively, the line between these two processes have grown greyer over the years. In fact, this has been a favorable change. Ideally the relationship between the two processes has evolved into a sort of continuum where one process effectively merges into the other. This level of integration significantly shortens the "reactive/action planning" phase of the cycle.

Quantitative Forecasting: Building the Baseline

There are clearly many components to forecasting. The foundation, however, is most often based on a statistical process. The key inputs to the statistical forecast are historical demand units that are usually expressed in weekly or daily buckets and causal factors such as promotional data, pricing, etc. Many forecasting tools allow for the automatic selection of the best algorithm based on an ex-post test on their relative accuracy. One other factor to consider in improving the accuracy of the statistical forecast is the selection of the optimal history horizon. In retail, this may vary based on the level within the retail hierarchy being forecasted; for instance, it might be better to go with a shorter history horizon at the store level so you can react to localized events such as competitive store closings/openings quickly while maintaining a longer history horizon at the national level in order to pick up broader product-based characteristics such as seasonality/macro trend and the like. Additionally the store level statistical forecast for key seasonal events such as Back to School may have to accommodate complexities arising from significant variations in school opening dates across the various states and even across districts within a state. Overall, a key rule for statistical forecasting is "Garbage In Garbage Out." Historical data as well as data on causal factors such as promotional events, seasonal events, etc., must be cleaned of "noise." For example, one time "bulk" purchases at the store level must be systemically identified and smoothed using outlier logic. Another example would be to adjust historical sales data for weeks when the product was out of stock.

Forecasting: Qualitative Enrichments

Once the statistical forecast has been developed, it is time to "enrich" this "quantitative" forecast with "qualitative" insights. These insights can come from several areas within an organization—merchandising, marketing, and finance being a few of the critical areas. Further insights can be gathered from "trading partners" through a CPFR process. Let's discuss in more detail the key unique qualitative insights that each of these parties must bring to the collaborative forecasting process. Let's start with Merchandising. Merchants are the experts on the "product" axis. On the retailers side the merchant has insight into the key trends in their product category across all key manufacturers of the product. They can therefore predict the impact of pricing changes planned, promotional events, marketing strategies, etc. They can also predict end of life cycle impacts to sales and plan-o-gram changes that might drive sales due to a change in the location of product in stores. One example of this would be the impact of off-shelf locations on highly seasonal merchandise during a key season, such as Back to School. The merchant may also be able to predict cannibalization of sales from other SKUs as a result of such plan-o-gram changes.

S&OP Agenda

The merchant must also participate with the demand planner in an S&OP process. The two key objectives of this process are as follows. First, reconcile the merchant's top-down driven forecast with the demand planner's bottom-up forecast. Second, reconcile any supply-demand mismatches and develop action plans to mitigate risks arising out of such mismatches.

Top-Down/Bottom-Up Forecast Reconciliation

The key steps to achieving this objective are as follows: Category level alignment—comparing the two forecasts at a category level—and identification of the weeks that are off by more than an acceptable tolerance level. The next step would be to reconcile these differences in the appropriate weeks across the right SKUs. Additionally as part of the forecast reconciliation, a review of any new items, end of life cycle items, promotional items, and seasonal merchandise must be done to validate forecasts.

This reconciliation process can be extremely hard and frustrating to accomplish. Often there are egos involved and some feelings of territorial expertise that may come in the way of

Table1 | S&OP Forecasting Example

	Current Wk+1	Current Wk+2	Current Wk+3	Current Wk + 4	Current Wk + 5	Current Wk + 12
Merchant Category Forecast	150000	145000	150000	160000	170000	176000
Demand Planner Forecast	120000	143000	148000	150000	130000	170000
Variance	25%	1%	1%	7%	31%	4%
Consensus Forecast	135000	143000	148000	150000	145000	170000

Item Level Drill Down	Current Wk+1	Current Wk+2	Current Wk+3	Current Wk + 4	Current Wk + 5	Current Wk + 12
SKU A	5000	No Change	No Change	No Change	No Change	No Change
SKU B	5000	No Change	No Change	No Change	No Change	No Change
SKU C	5000	No Change	No Change	No Change	5000	No Change
SKU D	No Change	No Change	No Change	No Change	No Change	No Change
SKU E	No Change	No Change	No Change	No Change	5000	No Change
SKU F	No Change	No Change	No Change	No Change	No Change	No Change
SKU G	No Change	No Change	No Change	No Change	No Change	No Change
SKU H	No Change	No Change	No Change	No Change	5000	No Change

the overall objective of this step. The key skill required here is "listening." Each party must recognize the unique insight that the other possesses, and enter this step with an open mind to listen and absorb that insight. At the same time one must be able to openly challenge any assumptions that appear unrealistic. It is very important that there is a high level of trust and respect between the two parties—enough to withstand the temporary unpleasantness and stress that a forecast reconciliation debate can bring. Additionally, the success of this step is often times aided by common performance measures for the two parties such as sales, gross margin, inventory turnover, and product availability. At the end of the day, while this step is the hardest, it is also at the heart of the success of supply chains and is the most critical key to the "making the numbers" objective!

S&OP Forecasting Example

The example shown in the Table 1 simply illustrates the following points. First, that top-down and bottom-up reconciliation process must be exception based to highlight the specific weeks that the category level forecasts are off. Second, the reconciliation discussion must happen at the SKU level. Based on a consensus of the impacted items an appropriate rebalancing of the gap must be performed across only those items.

Supply-Demand Reconciliation: Now let's talk about the key steps to achieving the second objective of the S&OP—supply-demand reconciliation. Based on a projection of planned purchases across the forecast horizon, a netted view of inventory at various locations within the supply chain may be obtained. This netted view can be used to flag exceptions where an out of stock may be experienced due to forecasts going out of sync with supply pipelines. The flip side of this would be an exception where the current pipeline of orders indicates the risk of overstocking stores/distribution centers. The participants of the S&OP must take the appropriate actions to adjust the production plan if sufficient time is available prior to the exception week. However, if it is too late to make this adjustment, then a different set of actions may need to be taken. In the case of the out of stock risk, substitute items/alternate suppliers transferring product from an alternate channel within the retailer's business are examples of possible solutions identified to support customer demand on the original item, especially if it is on a promotion. In the case of an overstock risk, pricing changes or a change in product location in the store may need to be initiated to stimulate sales. Alternate channels of demand may need to be explored. Additionally, as part of the supply demand reconciliation objective of the S&OP, a longer-term view of supplier metrics must be prepared to identify consistently low performers and determine the appropriate forums to initiate collaborative improvement actions to review with these vendors.

Customer Priorities: Another aspect of collaboration/demand shaping activity between the merchant/demand planners is the establishment of customer priorities. This activity occurs at every level of the supply chain when product is constrained and a determination on rationing needs to be made. To avoid redundancy, many planning systems allow for the automation of fair sharing based on these agreed upon priorities. However, depending on the relevance of the constrained SKUs within the impacted customer chains, these generic customer level priorities (priorities agreed on by the sales teams) may need to be revisited as part of the S&OP process.

Vendor Input: Now, let's discuss the insights that the manufacturer brings to the forecasting process, typically through a CPFR type process. Manufacturers have industry insight on their product category across all their retail outlets. They can therefore more accurately project the impact of a promotional event at any one retailer by putting it into perspective against other promotional events taking place at other chains. Without explicitly sharing the specifics of other retailer's promotions, they can still embed this knowledge into a revised estimate of sales for the promo being forecasted. They can further project the impact of marketing strategies being implemented by their marketing/brand teams. They can provide an accurate supply picture and identify constraints in their pipeline. They can also provide additional insight on product transition plans and SKU cannibalization impacts.

CPFR

Voluntary Interindustry Commerce Standards Association (VICS) outlines a 9-step process that consists of 4-high level sections — Strategy/Planning, Demand/Supply Management, Execution and Analysis. The first step of this process, is to develop a "front end agreement." This agreement outlines each party's expectations and lays out a commitment of actions/resources. Step 2 is to develop a joint business plan. Here, both parties lay out their shared, measurable targets for individual categories, strategic objectives, and tactics to achieve these targets. Details such as item management profiles for lead times, order minimums, order intervals etc., are also established within this step. Steps 3, 4, and 5 focus on the forecast of sales to the end customer at retail, otherwise referred to as the POS Forecast. Step 3 is the development of this forecast, Step 4 is the identification of exceptions between the POS forecast developed by each party, and Step 5 is the resolution/consensus step that drives both parties to share insights supporting their individual numbers and eventually landing on a number that will likely be more accurate than their individual starting points. Steps 6, 7, and 8 focus on the retailer's forecast of purchases from the manufacturer. They are similar in sequence to the POS process and eventually result in a more accurate forecast of orders that suitably meets any guidelines defined within the joint business planning documents. The final step is the execution of the order to ensure a timely delivery of product to the retailer—right location/right time.

Closing the Loop

An important piece of the planning cycle is the measurement and course correction stage. Often referred to as "closing the loop," this step enables a critical "continuous improvement" cadence within the collaborative planning process. It consists of three critical phases. The first phase is measurement, i.e., quantifying the degree of planning error. The second is learning, which means investigating and establishing the root cause of the error. The third and final phase is course correction, which in this case refers to the direct application of the lessons learned in the current forecasting cycle to future forecasting cycles.

Measurement: A standard measure of forecast error is the weighted mean absolute percent error. Ideally this is measured at the lowest level of granularity, for example, SKU, location, and week level; The measure represents the sum of the absolute forecast errors divided by the sum of the actual disbursements being forecasted. The value of this measure clearly lies in the fact that it does not allow positive and negative values of forecast error to offset each other as the calculation is rolled up. However, what gets lost in this calculation of error is any insight into directional bias. To provide this additional view, a forecast bias metric is essential to the closed loop process. This measure is similar to the MAPE in its roll-up, however it simply replaces the "absolute variance" with the true value of the variance, allowing for negatives and positives to be reflected as such.

Lastly, whenever you have a measure, there is always the question of a benchmark against which the measure may be compared. While such benchmarks do exist and are worthwhile to look at, there is also a school of thought that contends the key benchmark is your own history. According to this theory, the forecast error should be compared to that of a "naïve" forecast. A naïve forecast is one based on simply using the last observed value as the forecast for the next period. It could also be a simple moving average of a group of previously observed values. This comparison of the observed forecast error to that of a naïve forecast essentially measures the "value added" of the forecasting process and is called "forecast value added." (Reference Michael Gilliland, "Fundamental Issues in Business Forecasting," *Journal of Business Forecasting*, Summer 2003). It can be measured at any level of the collaborative planning process to measure the "value added" of each step.

Learning: Once the degree of error has been measured, it is crucial to understand the root cause of the error. To make this process of learning manageable across a large number of SKU/location combinations, it is first necessary to establish reasonable tolerance levels. These tolerance levels should then be used to flag exceptions and only those exceptions should then be researched and understood. As time goes on and the forecast performance improves, the team can come back and tighten the tolerance levels to reflect the "raising of the bar" within the process.

The root cause of forecast error may generally be found to reside in one or both of two likely areas—quantitative forecasting errors or qualitative forecasting errors. Quantitative errors could be due to improper settings for parameters; for example, an overly high degree of sensitivity to seasonal factors or an extremely low sensitivity to recent history. Quantitative forecasting errors may also arise from errors in the historical data, such as one-time bulk sales arising from special orders or extended periods of zero sales due to out of stock situations. Qualitative forecasting errors could arise from missing a communication of a key promotional event or other causal factors such as the school opening dates within a particular school district. They could also arise from poor "judgmental" estimates of

what the event might do to sales.

Course Correction: Any time spent on understanding the root cause of the error will pay richly for itself in the future if the learning is used to correct the forecast going forward as appropriate. If the error arose from improper parameter settings, those parameters must be corrected immediately. If it was due to improper communication of promotional events, the necessary steps must be taken to ensure the integrity of the communication process is restored. Furthermore, actions must be taken within this step to immediately address overstocks from missed forecasts or place incremental orders where forecasts were oversold, without having to wait for the next forecast update in the system.

Figure 2 | Weekly Business Rhythm

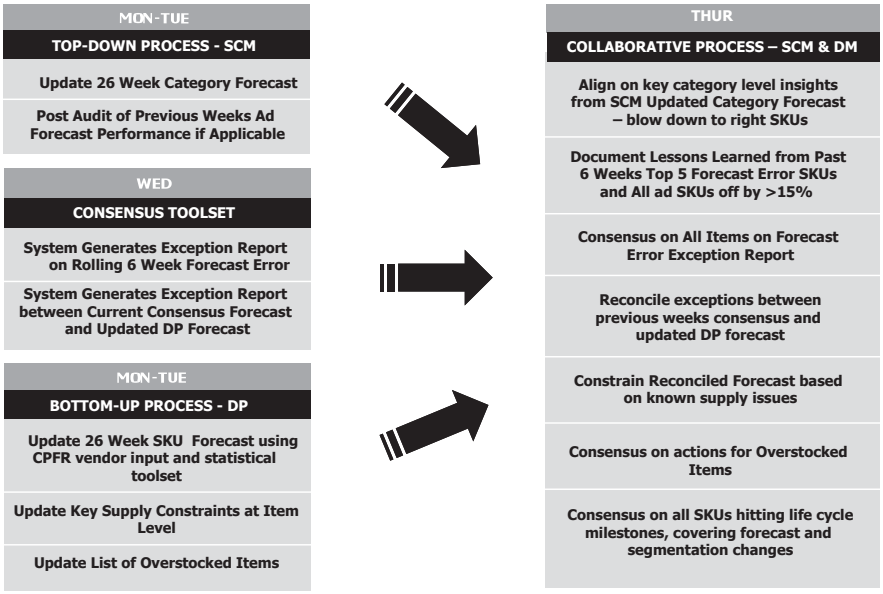


Figure 2 outlines a recommended "weekly business rhythm" that integrates the CPFR and S&OP process requirements. Mon-Tue is spent on the development of individual forecasts by merchant, demand planner, and supplier. By Wednesday these forecasts should be pulled into an exception generation report to highlight key points requiring collaboration. Thursday the teams meet to share their individual insights and arrive at a consensus on exception items. They should also discuss past forecast performance in this review to agree upon lessons learned and document for future reference. Any supply constraints should be discussed, along with demand shaping opportunities. Revised forecasts based on this discussion should be input back into the planning systems.

A Note on Implementation Challenges

I have the good fortune of having experienced CPFR implementations both as a supplier and retailer. Based on my experience in both the manufacturing and retail sectors, I can comfortably say that retailers are much better positioned to initiate a CPFR program.

During my time on the manufacturing side, we were the first in the appliance industry to launch CPFR with our customers. This was not an easy task. We were initially met with some skepticism. It was perceived as a great deal of additional work, with no proven benefits. Fortunately, what helped us was that the project vision was driven from the top down (VP Supply Chain support) and there was alignment between our sales and supply chain divisions on the vision. The approach that we took to overcome customer reluctance was to go through the initiative in "pilot" mode with a high degree of structure—there would be hard metrics that we would track throughout the pilot and make a final decision only after the benefits were proven. We also shared the results from successful CPFR implementations by supply chain leaders in other industries. The structured pilot approach eased the concerns of our retail customers' senior management and we got their buy in.

There was still some reluctance at the demand planner level however, as they had to spend some of their very valuable time on learning the new process, a new system, and getting used to a new cadence, even if it was just a test. Our approach to dealing with this reluctance was to engage the demand planners on both sides heavily in the design of the process. We also made sure we had of fun with the process, making use of the workshop sessions as good team building opportunities as well. The result of the heavy up-front engagement in process design resulted in a strong sense of ownership within the team. The team developed a sense of pride with the work they had done and this helped motivate them to make the outcome a success. To top it off, the results were undeniably strong—WMAPE was reduced by 25 percentage points and co-efficient of variation on week to week order volumes dropped to a third of its original value.

Moving from a supplier role to a customer role (retailer) within the supply chain was definitely interesting. I had definitely seen tremendous success with CPFR in the

appliance industry and was a firm believer in its merits. The approach as a retailer was, however, a little different. Given the high sense of urgency to quickly recover performance during what was then the beginning of a full scale "turnaround" situation at this retail chain, we could not afford the luxury of easing into the next level of process improvements. Therefore, we took a "big bang approach" to the situation. All key suppliers were invited as a group to our headquarters. The scope of the collaborative project was outlined along with expectations, scorecards, weekly business rhythms, etc. There was some stratification in the intensity of the program depending on the sales volume of the supplier with us. After the general overview for all, we had breakout sessions with key suppliers to go a step deeper into what the process would look like specific to their categories with us. As expected, there were varying degrees of commitment on display during the sessions. However, being the customer certainly makes it easier to overcome such issues. During the same event, we launched a supplier performance management program that brought us to par with some of our competitors in applying penalties for late orders. The CPFR program was developed as our initiative to "help us help you" perform and avoid penalties. Suppliers were advised that forecast error could no longer be used as a crutch for poor on-time delivery performance. Suppliers would now have access to POS history, POS forecasts, on-hand data, and order forecasts. They could no longer be "victims" in this new world of collaboration. We were going to hold them accountable for forecast accuracy as well. We assured them that if there was any reluctance from our teams to listen to their voice during the CPFR process, it was to be escalated immediately. We set up monthly meetings to review joint scorecards. We have these meetings even today. In the first year of implementing this program, we saw a 30-percentage point improvement in WMAPE. As of today the WMAPE improvement gained is at 50 percentage points.

Conclusion

In conclusion I would like to summarize the key points we've discussed. The number one priority of supply chains is to ensure the availability of product at the "right place/right time." There is a high cost of disconnects between multiple planning nodes of the supply chain across companies. The integration of key internal and external collaborative processes by pulling together respective players can significantly improve the integrity of the forecast and significantly eliminate disconnects in the planning nodes. Measurement is key to improving performance. Understanding the root causes of error and course correcting are critical parts of the planning process. Most importantly, discipline and regularity with this cycle is key. A weekly business rhythm that is strictly adhered to will go a long way in ensuring the sustainability and consistency of results. *info@ibf.org*

The Shelf-Connected Supply Chain: Strategically Linking CPFR with S&OP at the Executive Level

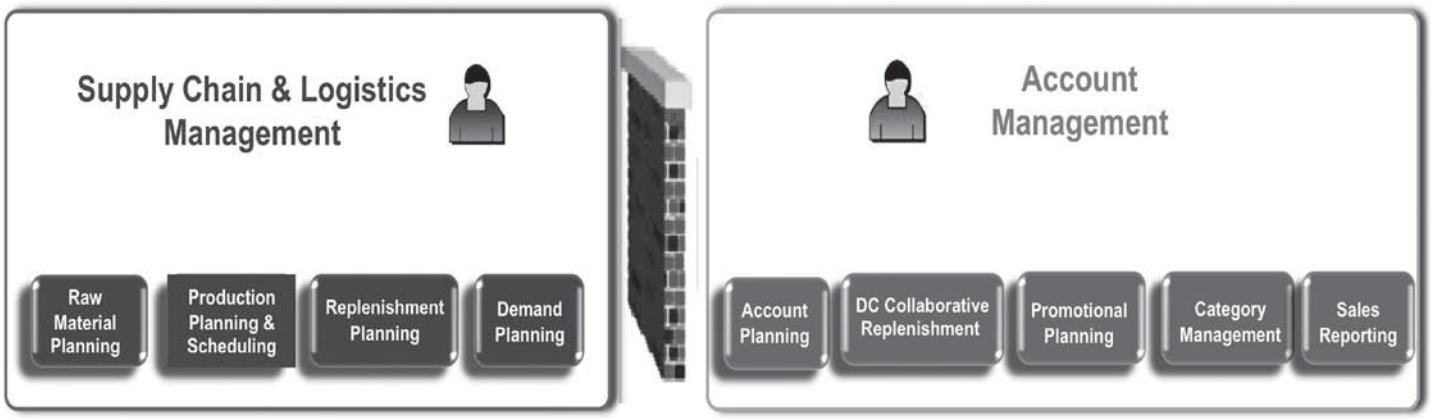
By Fred Baumann

EXECUTIVE SUMMARY | Consumer goods manufacturers have made significant investments in cross-functional customer teams with the hopes of gaining better insights into consumer demand to improve sales. Many built these teams to assist in driving efficiencies back through their supply chains and formally link the customer's perspective into their on-going corporate sales and operations planning (S&OP) process. Yet it is still very common that the data and insights of these teams are lost in translation, and corporate planning functions continue to build their future plans off of historical shipments out of their plants and distribution centers (DCs) versus the demand signal from the shelf. This article highlights strategies for consideration for deploying a shelf-connected supply chain that links collaborative customer execution with executive level planning.

FRED BAUMANN | Mr. Baumann is Vice President of Industry Strategy at JDA Software, where he has been instrumental in driving JDA's collaborative trading community strategies and launching the company's CPFR and S&OP offerings. Prior to that, he worked for IBM in an application training role and The Pillsbury Company as a Value Chain Manager. At The Pillsbury Company, he was responsible for starting the collaborative inventory program with Wal-Mart. He is on the Advisory Board of the Collaborative Planning, Forecasting and Replenishment (CPFR) VICS industry subcommittee and is responsible for putting together industry guidelines including the 2010 guidelines.

While globalization has resulted in many bottom-line benefits, it has simultaneously increased the level of complexity and uncertainty by which companies operate today, making the sales and operations planning (S&OP) process more critical to a company's success than ever before. Companies now face a host of new business challenges, including increased service level expectations from retailers, shorter product life cycles, and heightened cost

Figure 1 | Linking Supply Chain Leaders with Customers



pressures from global competition. As such, their position in the market is being defined by how quickly they can profitably respond to these challenges.

With this new level of variability, companies must have the ability to synchronize their demand and supply plans to that of their largest customer—especially now when critical-mass retailers have more influence than ever over manufacturing supply chain planning. To achieve this, companies must sense demand signals further down the supply chain and have a process in place to synchronize the executive planning and execution sides of S&OP.

It's Easier Said Than Done

For supply chain leaders, the goal of formally linking customer collaborative processes with corporate S&OP cycles makes sense. However, many companies have struggled to link these processes effectively. Figure 1 highlights a framework that has become all too common for fast-moving consumer goods manufacturers. In it, the boxes to the left of the brick wall highlight some of the key supply chain corporate processes in place today to support key downstream customers, including these:

- Raw Material Planning
- Production Planning and Scheduling
- Replenishment Planning
- Demand Planning

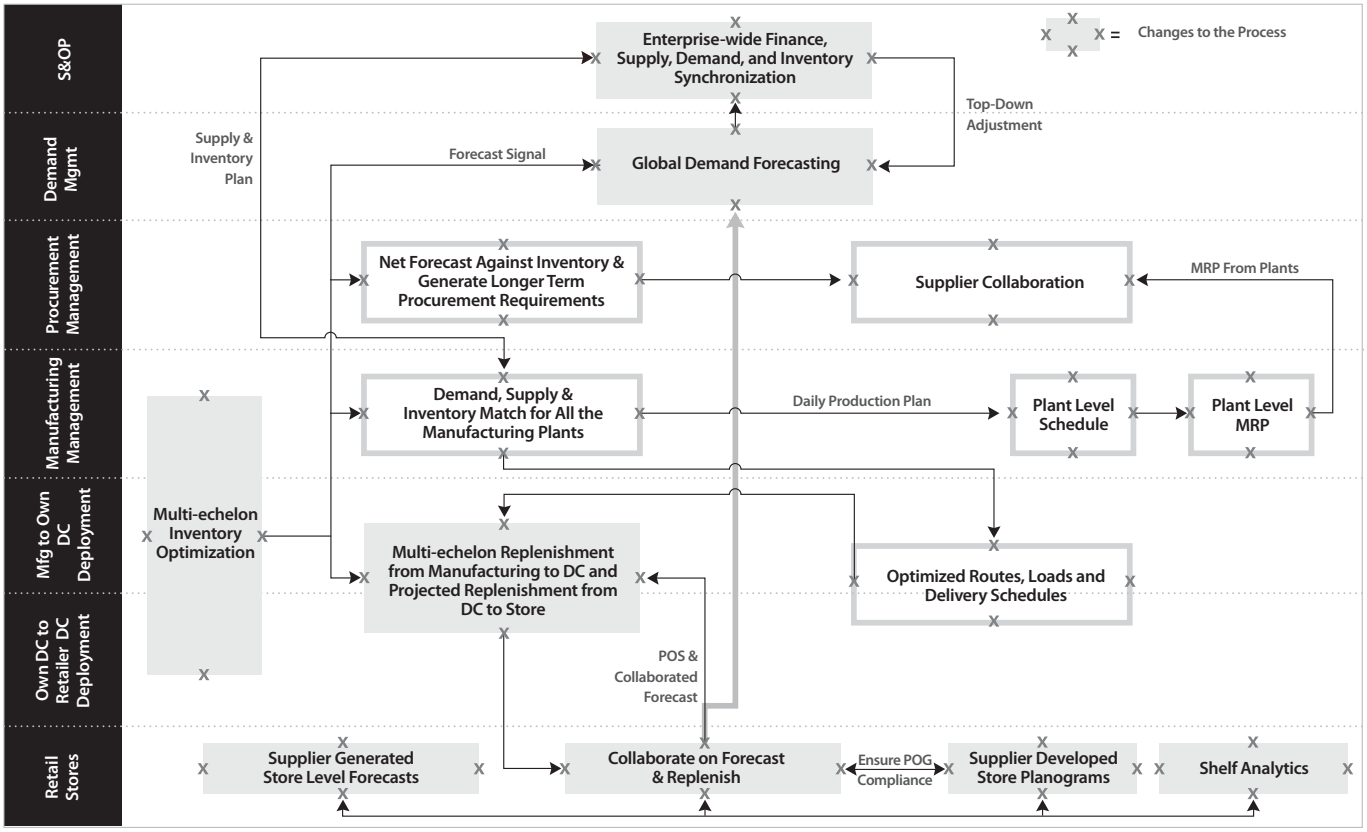
The predominant demand signal driving the above processes for many manufacturers has been shipments out of their distribution centers (DCs) and/or plants or in some cases historical orders on these supply nodes in the network. Improved fill rates or "perfect order" attainment were the primary metrics for success. Manufacturers have created pools of inventory as a buffer against the "bullwhip" of demand to maintain their key targets and have often been caught short when dramatic demand shifts have occurred at the shelf, thereby creating excess inventory and lost sales.

To the right of the "wall" in Figure 1 are the same manufacturer's cross-functional teams that support the sales and service of their products to their critical mass customers. These teams have added significant value in executing Collaborative Planning, Forecasting and Replenishment® (CPFR) activities and vendor managed inventory (VMI) programs to improve sales and coordination. Market consolidation has created an environment where an ever-increasing share of the business is coming from a shrinking list of very large retailers. Some of the key planning processes of these teams include:

- Sales Account Planning
- Collaborative Retailer DC Forecasting and Replenishment
- Promotions Planning
- Category Management
- Sales Reporting

The cross functional retail teams working with the supplier account teams are closest to the consumer demand signal. Determining a way to close the planning and information exchange gaps between these two groups represents a significant opportunity to drive greater revenue at a lower operational cost. Closing the gap requires a fundamental shift in some of the planning processes currently executed by corporate planning departments.

Figure 2 | Shelf-Connected Supply Chain Model



Shelf-Connected Supply Chain Model

Figure 2 highlights the new process paradigm for the shelf-connected supply chain. The shaded boxes represent some of the largest opportunities for change. Starting at the bottom of Figure 2 with Retail Stores we have the following:

Supplier Generated Store Level Forecast: Manufacturers need to be able to model and forecast demand at their customer's shelf level Manufacturers withthe ability to forecast at the shelf will capture changing trends faster than their shipment-based forecasting counterparts, enabling them to make proactive changes to inventory and production strategies. Moving to a shelf-level forecast capability requires the adoption of technology that can scale to potentially hundreds of millions of SKU/location combinations. This solution must be driven by an exception management framework model that enables a planning staff to effectively capture insights without reviewing every item/location intersection.

Collaboration on Forecasting and Replenishment: Many manufacturers have been caught off guard by a dramatic increase in retail orders or a significant drop off in order levels without an apparent reason for the order shift. After due diligence with the retailer, it often becomes apparent that the root cause is a change in replenishment policy. For instance, changes in service levels, safety-stock settings, lead times, transportation modes, and order parameters can drive large swings in order patterns. Manufacturers need visibility into retail order strategy parameters to better predict future time-phased orders coupled with store-level forecast collaboration to move to a shelf-connected supply chain model.

Supplier Developed Store Planograms: There is a great opportunity to formally bridge and integrate the shelf planning and demand management function within a manufacturer. Often the category management teams and demand forecasting teams operate in a totally independent manner or are very loosely coupled with informal

collaboration. It is common for category management teams to allocate space on the shelf by a historical demand average and some corresponding rule of thumb parameters such as "case pack and a half." As manufacturers transition to retail-shelf driven forecasting, they can apply these time-phased forecasts to the way shelf space is allocated more effectively. In addition, having visibility into a time-phased demand plan can assist retailers and manufacturers with the frequency by which shelf resets should occur for a category. For instance, highly seasonal products and categories may be reset more frequently to avoid stock-outs or excess inventory situations. Measuring demand variability at the shelf can also drive more intelligent space-allocation decisions. For example, items that have the same average demand over time can have very different demand distributions. All other things being equal, products that have stable and continuous demand streams may require fewer facings than items with the same average demand that have highly variable erratic demand patterns.

There has been a significant amount of innovation in the area of shelf-space automation, enabling manufacturers and retailers to develop store-specific planograms based on the unique demand patterns and consumer demographic data found at the store level. Many retailers and manufacturers are moving away from a "one-size-fits-all" or regionally based shelf set to shelf plans and assortments that are optimized by store cluster or individual store. The execution and implementation of a store-level reset can have a dramatic impact on the corresponding time-phased order plans that are executed to the manufacturer. Next-generation software providers have recognized this link and have formally integrated store-level forecasting and replenishment to plan-o-gram management and execution. This models the impact that shelf set changes and promotional displays can have on planned order flows.

Shelf Analytics: Many manufacturers have invested in demand signal repositories to leverage the point-of-sale information obtained from their critical mass trading partners. These repositories have helped manufacturers measure the impact of past promotions, monitor distribution of new and existing items, and identify pricing trends and historical out-of-stock situations. Next-generation solutions are moving from a historical perspective of the retail shelf and moving to a predictive future.

Capabilities now exist that enable manufacturers and their retail trading partners to leverage algorithms that focus on the root cause to determine which items are likely to be out of stock in the future. This is a transformational change from the history-based analysis that identifies out of stocks after they have occurred. Some of the most common out-of-stock root cause identifiers include the following:

- Phantom/ghost inventory where perpetual inventory found in the retailer's system is likely to be inaccurate
- Inappropriate ordering parameters
- Inaccurate demand forecasts
- Insufficient shelf-space allocation due to promotions or seasonal demand
- Shelf distribution driven by poor in-store execution

Manufacturers that can identify these out-of-stock situations and dynamically adjust forecasting and replenishment parameters via collaboration with their retail partner will have a competitive advantage over those that do not.

Multi-Echelon Inventory Optimization: By leveraging multi-echelon inventory optimization, companies can improve the accuracy and performance of daily replenishment and inventory planning to drive higher levels of in-stocks with lower inventory across the network. Shelf-connected solutions incorporate scenario management down to the customer level, enabling companies to make strategic, informed decisions that further enhance their inventory control. Multi-echelon solutions look at safety-stock requirements beyond a single node within the supply chain to consider inventory, cash, budget, and service level tradeoffs and how they fit into different strategies that encompass the entire network.

Companies that adopt multi-echelon inventory optimization down to the retail customer can:

- Quickly adapt inventory policies and stocking strategies to address changing market conditions, business objectives, supply chain constraints, customer segmentation, and buying behavior.
- Eliminate excess inventory and reduce obsolescence costs while maintaining customer service levels.
- Develop inventory strategies that maximize the profitability and volume of key materials, components, and products.
- Reduce stock-outs and excess inventory through early warning and performance analysis.

Multi-Echelon Replenishment: Many manufacturers have become frustrated with store-level CPFR programs because they have not been able to integrate the insights from the collaboration back into their supply chain. For many, this was because they did not have an effective way to translate the store-level forecast

into a reliable time-phased order plan. Large-scale retailers are now deploying multi-echelon planning solutions that incorporate the constraints of their network in order to produce a reliable time-phased order plan. These plans incorporate but are not limited to the following:

- Time-phased demand forecasts from the shelf
- Calculating minimums from shelf-set plans
- Shipping and receiving calendars of their stores and DCs
- Required lead times between each of the nodes in their supply chain network—from the suppliers order point to the shelf
- Item case pack and pallet rounding rules
- Transportation minimums and rounding rules
- Safety stock requirements
- Order cycle targets

Manufacturers can create these time-phased plans independently or work with their key trading partners to capture this plan as a replacement to a less reliable order forecast that is based exclusively on historical shipments of a manufacturer shipping DC location.

Global Demand Forecasting: Manufacturers that adopt a shelf-centered point of view map key customer demand forecasts directly into their forecasting hierarchy and take into account the customer's view into their consensus demand planning process. Many manufacturers incorporate customer demand hierarchies today, but the statistical views are often built upon shipment histories versus a shelf-driven demand signal. The shelf-connected model starts with the pull signal from the shelf as the primary input to develop accurate customer time-phased order plans. A time-phased order plan that incorporates the customer-level demand signal is a foundational building block to synchronized enterprise-wide S&OP.

Synchronized Enterprise-Wide S&OP: As shown in Figure 3, the brick wall is removed as a company updates its business processes to the shelf-connected model discussed earlier. A synchronized S&OP process transforms the traditional supply and demand balancing exercise into an integrated business planning process that aligns a company's operational plans with its long-term business strategies and financial objectives. To achieve this level of coordination, companies must establish an integrated planning framework that links S&OP with CPFR initiatives.

Starting at the bottom part of Figure 4, companies have established collaborative trading partner initiatives with their key customers and suppliers to build joint value by collaborating on forecasts, new

Figure 3 | Next Generation of S&OP

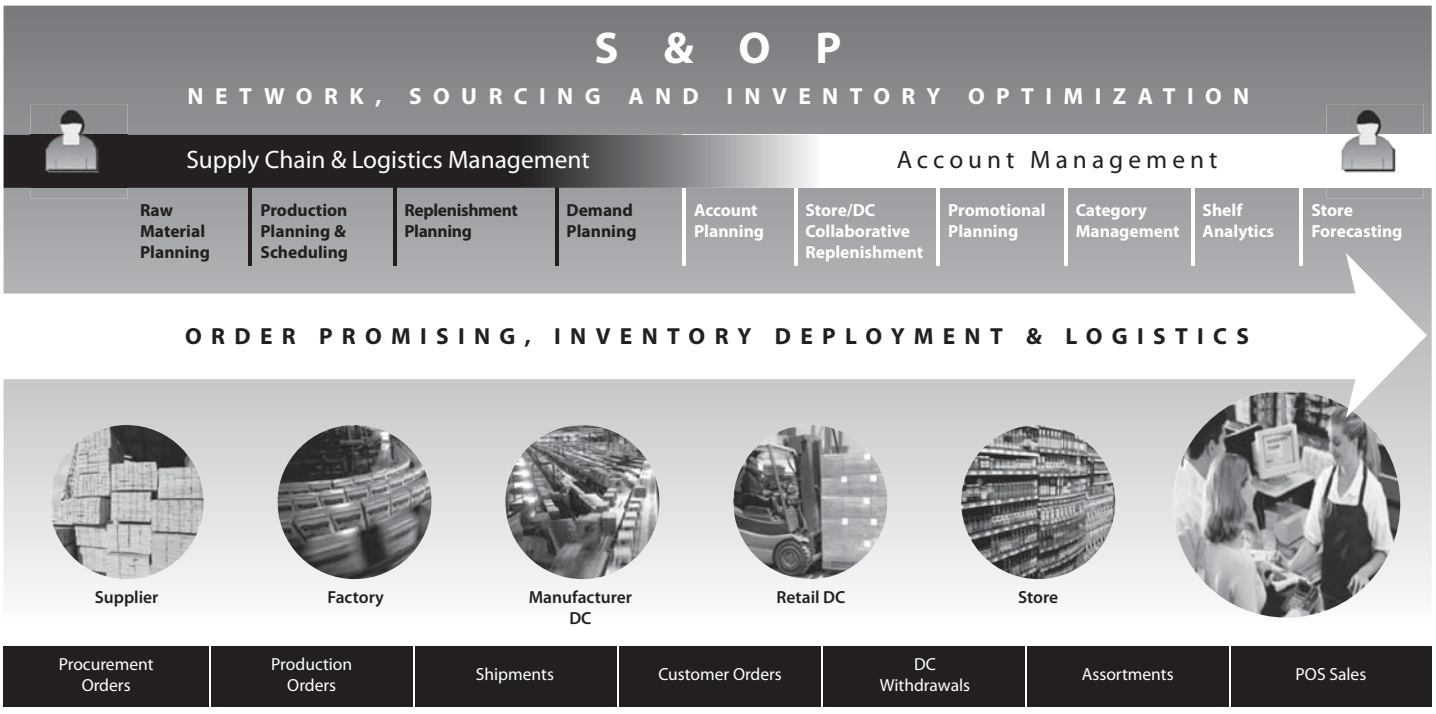
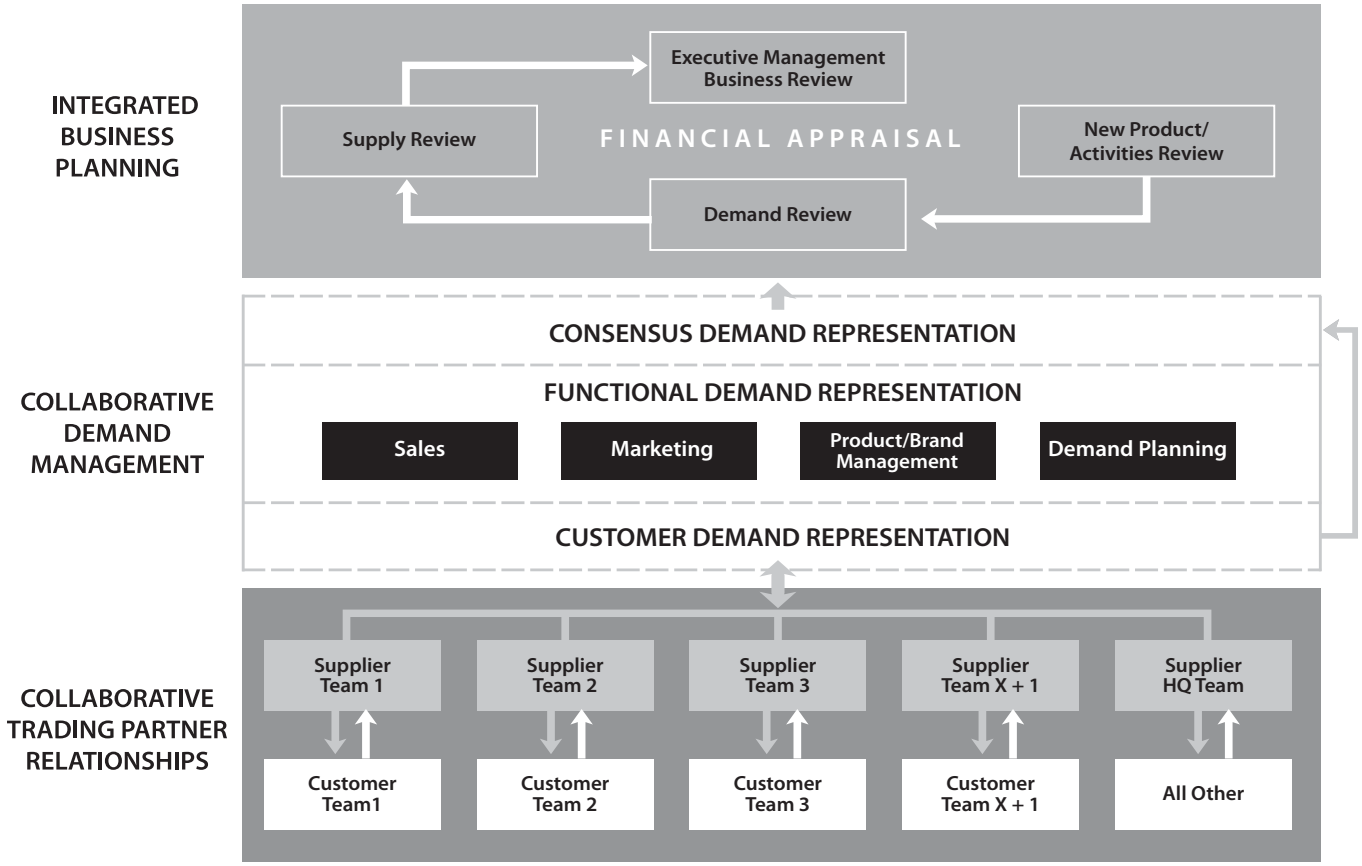


Figure 4 | Integrated S&OP and CPFR Framework



products, and replenishment plans. These external insights can improve the collaborative demand planning processes that are internally executed across functions within a company as shown in the second layer of Figure 4—Collaborative Demand Management. After a consensus demand plan is created that incorporates the key insights from customer and supplier relationships, it becomes a key input into the long-range integrated business planning process. This allows a company to synchronize its demand, supply, new product, and financial plans over a time horizon that links to corporate strategy. This time horizon is typically 18 to 24 months or more on a rolling basis (see the top layer in Figure 4).

Recently, significant transformations have occurred in the marketplace that make the connection of S&OP and CPFR more attainable and valuable, including the deployment of time-phased order planning capabilities by many critical-mass retailers. With this new capability, retailers can now provide a view of what they plan to order beyond a single lead time in addition to providing critical-mass demand data from the retailer's shelf or Web portal. This further improves the company's planning process.

Additionally, businesses need the ability to create and evaluate scenarios for demand spikes, supply shortages, and other strategic, operational, and tactical events. This analysis enables companies to examine how different scenarios will affect their financials, thereby helping them to determine the best course of action and enhance the sales and operations plan. Yet, in order for a company to achieve perfect-order fill rates and customer service targets, the sales and operations plan creation must be tied to plan achievement.

To accomplish this, companies must be able to track their daily progress against the sales and operations plan and take corrective actions to resolve any performance gaps or deviations as they occur instead of waiting for the next month's S&OP cycle to modify future plans. As companies sense any gaps in performance—such as demand or mix deviations, supply constraints, or unexpected competitive actions—they

must have access to "process playbooks" to improve their response time. Process playbooks provide companies with the most profitable solution to a particular deviation, automatically escalating deviations not included in the playbooks to the appropriate executive for immediate resolution. By employing this type of continuous improvement process, companies can ensure that they are operating in accordance to plan.

Achieving the Planning-Execution Connection

Despite the various benefits, many companies find it challenging to connect the executive planning and execution sides of S&OP. In fact, a recent AMR Research study found that "few companies claimed linking successfully the S&OP output to operational or execution processes." The study further shows that 30% of the companiesfind driving the use of a plan in daily operations is their biggest challenge.

Technology plays a key role in synchronizing this process. Companies interested in achieving an integrated planning framework that connects execution, operational, tactical, and strategic processes will benefit from a technology solution that features the following.

A Robust S&OP Data Management System: Given the breadth and depth of today's global supply chains, companies have exponentially more data that have to be consolidated into one format that can be easily digested and acted upon. Solutions need a meta-data management layer that features mappings and common data definitions for business unit, product, geography, etc., to help facilitate this process. Plus, with the increase of partners from emerging markets, companies need to be able to consolidate data with varying degrees of sophistication and different time horizons into one cohesive plan.

A Consolidated Business View for All Stakeholders: An effective S&OP process involves input from stakeholders such as finance, product development, procurement, manufacturing, demand and supply planning, and sales and marketing. Yet, each stakeholder needs the ability to view the time-phased plan

Figure 5 | Synchronized S&OP Maturity Model

Characteristics	Consensus Demand Management	Supply-Demand Balancing	Integrated Business Planning (IBP)	Inter-Enterprise IBP
Strategy for Operations Synchronization	Disconnected	Disconnected	Connected Within Company	Connected Within Company & Key Trading Partners
Organizational Functions Involved	Demand, Sales (Planners)	Demand/Sales/Mfg (Directors)	Demand/Sales/Mfg/Finance (Senior Execs)	Demand/Sales/Mfg/Finance (Senior Execs - Connected Across Companies)
Financial Integration	None	None	Tightly Coupled	Tightly Coupled, Trading Partner Influenced
Cross-Functional Process Facilitation	Limited	Demand - Supply	Workflow Automation, Qualitative Continuous Improvement	Inter-Company Process Orchestration With Qualitative Continuous Improvement
Enterprises	Single	Single	Single	Multiple With Accountability
What-If Scenario Analysis	Volume-Driven	Volume-Driven	Financially Driven	Financially Driven, Multi-Company Orientation
Ownership	Sales/Demand Management	Supply Chain	Senior Leadership	Connected Senior Leadership
Functional Requirements	Forecasting & Internal Collaboration	Rough-Cut Capacity Planning	Capacity Optimization, Process Calendars, Simulation, Time-Phased Financial Statements, Process Scoring, Dashboards, Executive Visualization	IBP Functionality Modeled for Multi-Enterprise Review
Metrics	Fast Accuracy Fill Rate	Fill Rate, On-Time Delivery, Turns	Revenue, Cost, Market Share, Profitability, Cash Flow	Revenue, Cost, Market Share, Profitability, Cash Flow

in the language and hierarchy level respective to that individual's role in the organization. For instance, a production planner may only need visibility into family-level demand on a key resource within his plant, whereas a senior-level executive may want an aggregated financial view of how the plan is operating against budget and whether the company is on track to achieve its long-term objectives.

Visibility into All Supply Chain Functions: Businesses need insight into company-wide supply chain planning activities, as well as the plans of their supply chain partners. This level of visibility is critical for companies initiating demand-shaping activities as they need visibility into the extended supply chain network to ensure planned promotions won't strip away their capacity to make the product. This visibility will become even more critical as the economy recovers, enabling companies to divert sources of supply to higher-margin markets in order to boost the company's overall margins.

Automated Workflow Synchronization: Within the S&OP process, there's a cadence and order to the activities that must occur and a level of coordination required among stakeholders. As companies deploy an integrated S&OP framework, the number of steps and coordination of activities across these functions and resources will increase. By using automated workflows and alert mechanisms, critical decisions can be elevated to the appropriate stakeholders, ensuring that the company continues to achieve its goals and objectives by operating according to plan.

It's The Journey, Not The Destination

A company's need for an S&OP process that closes the planning-execution gap will be determined primarily by the industry in which it operates. Not all stages of the S&OP maturity model, however, will apply to each industry (Figure 5). For example, companies in the consumer electronics industry are constrained by increasingly short product life cycles. Consequently, execution to plan has become a condition for market survival, prompting those in the consumer electronics industry to move toward the highest levels of S&OP synchronization.

On the other hand, industrial manufacturers, business-to-business manufacturers, and companies with slower-moving consumer goods can achieve great gains through modest S&OP improvements such as enhanced process orchestration and synchronization with finance. Ultimately, the closer a company is to the end consumer, the more important it is for them to understand the demand stream and harness that knowledge to create an integrated S&OP process that satisfies the company's business objectives and bottom line. *info@ibf.org*

A History of CPFR

By Larry Lapide

EXECUTIVE SUMMARY | Fourteen years ago Collaborative Planning, Forecasting and Replenishment (CPFR) was introduced as a concept for which a manufacturer and retailer could jointly do replenishment planning of the retailer's inventories. Its history has largely followed the Gartner "Hype Cycle." It started out with a lot of hype during the Internet/Dot.com Bubble, and then fell into a "trough of disillusionment" when the Bubble burst. Today its use is relatively pervasive, however, not in the same way it was "standardized" during the early days. It's about a bigger concept—supply chain collaboration.

LARRY LAPIDE | Dr. Lapide is a Research Affiliate at MIT and a Lecturer at the University of Massachusetts, Boston Campus. He has extensive experience in industry, consulting, business research, and academia as well as a broad range of forecasting experiences. He was an industry forecaster for many years, has led forecasting-related consulting projects for clients across a variety of industries, and has researched as well as taught forecasting. He was also a market analyst researching forecasting and supply chain software.

(This is an ongoing column in *The Journal,* which is intended to give a brief view on a potential topic of interest to practitioners of business forecasting and planning. Suggestions on topics that you would like to see covered should be sent via email to llapide@mit.edu)

I got on the Collaborative Planning, Forecasting and Replenishment (CPFR) program bandwagon very early, just as it was getting started. There was much excitement about it in the supply chain community. It was viewed as a way for manufacturers and retailers to drastically reduce inventories, costs, and waste in consumer product goods (CPG) supply chains. Eventually the excitement was about supplier-customer "collaboration" in general, as offering the long-term panacea, and the epitome among ways from which to integrate supply chains—and thereby gain huge benefits in inventory reductions and increased sales. Like most new technology innovations, it followed the Gartner "Hype Cycle" in which early-on, after a "trigger," it experienced a period of "inflated expectations," then a period of "trough of disillusionment," and eventually "enlightenment" that led to its current period of "productivity."

The Early Days

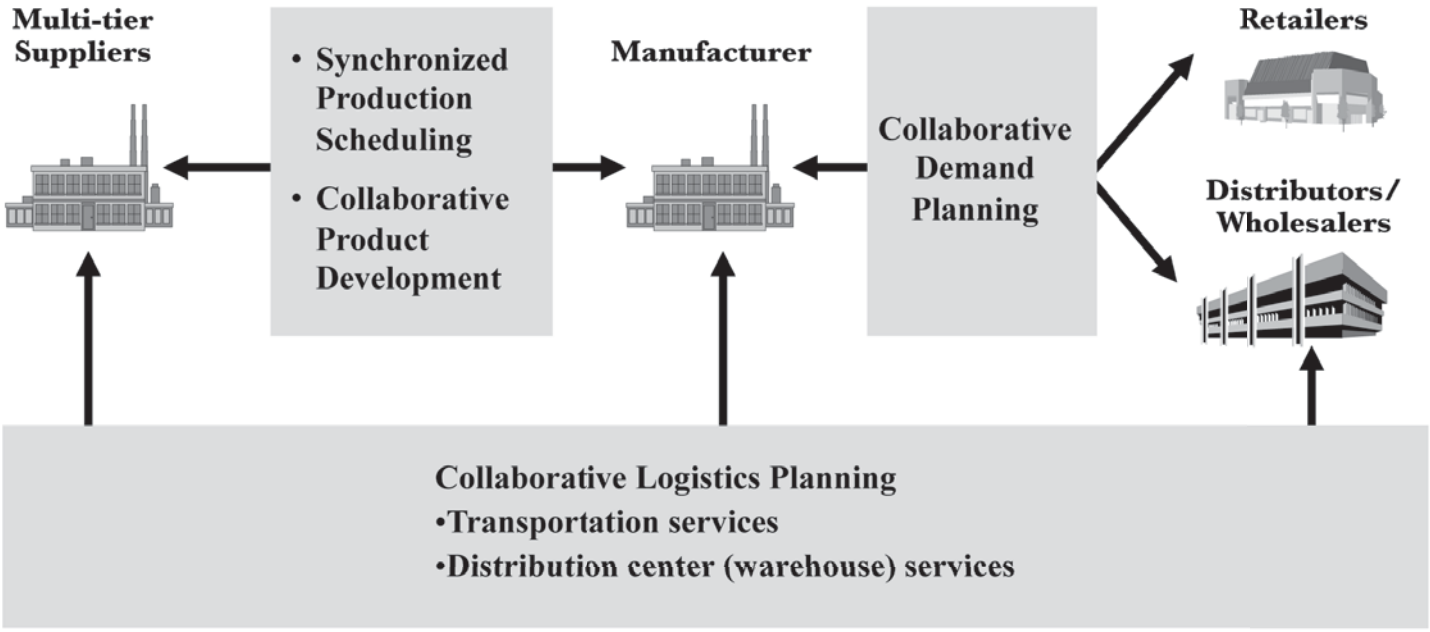
My first awareness of CPFR came over 14 years ago upon reading a *Business Week* magazine article, dated October 21, 1996, titled "Clearing The Cobwebs from the Stockroom: New Internet Software May Make Forecasting a Snap" (http://www.businessweek.com/1996/43/b3498166.htm).

The article described a working pilot that was being conducted by Warner-Lambert Company and Wal-Mart to co-forecast the retailer's sales of Listerine mouthwash, and to improve the retailer's inventory replenishment of the product. The initiative at that time was not called CPFR; instead, it was called Collaborative Forecasting and Replenishment or CFAR, to represent the implication of a "see far" initiative. According to the article, a small consulting firm, Benchmarking Partners, "had developed CFAR with funding from Wal-Mart, IBM, SAP, and Manugistics (now part of JDA Software)" and was trying to establish industry standards for the way retailers and their suppliers should collaborate over the Internet. That January, I joined Benchmarking Partners for about a year to play a part in CPFR's evolution, and continued to track the industry initiative during my tenure as a supply chain analyst for AMR Research (now part of Gartner).

During this time, like many others, I felt that CPFR was going to be great and an important way in which to leverage the Internet to totally integrate supply chains. Like the Internet, we all felt that "it was going to change everything" and that we were entering into a "new economic" model.

The first major AMR Research report I wrote on CPFR was published in July 1998: "Are We Moving from Buyers and Sellers to Collaborators?" While the title was posed as a question as to whether CPFR was going to be a big deal, the report was bullish on its long-term prospects. In that report, I showed Figure 1 to depict not just the manufacturer-retailer collaboration (regarding demand planning), but also all the various other opportunities along a supply chain for collaboration among selling and buying trading partners. I conjectured that the

Figure 1 | Major Collaboration Opportunities within a Supply Chain



Source: Lapide, Lawrence "Are We Moving from Buyers and Sellers to Collaboratiors?" *The Report on Supply Chain Management,* AMR Research/Gartner , July 1998.

collaboration concept was going to be useful not only for the relationship between a manufacturer and a retailer (i.e., what CPFR was focused on), but also between a manufacturer and its multi-tiered set of suppliers to do Synchronized Production Scheduling and Collaborative Product Development. I also postulated collaboration among manufacturers and their logistics provider to do collaborative logistics planning for transportation and distribution center (i.e., warehousing) services.

In addition, I identified three levels of electronic commerce between a buyer and a seller: 1) transactional, 2) information-sharing, and 3) collaborative. I described these as the path that buyers and sellers would follow, and that would ultimately lead to a strategic relationship that would include CPFR.

Meanwhile, early in CPFR's history, the Voluntary Interindustry Commerce Solutions (VICS) Association embraced the concept as part of its mission and set to work on developing industry standards and supporting CPFR pilots. According to its Website (www.vics.org/committees/cpfr/): "Since the 1998 publication of the VICS CPFR guidelines, over 300 companies have implemented the process. Numerous case studies of CPFR projects document in-stock percentage improvements of 2% to 8% for products in stores, accompanied by inventory reductions of 10% to 40% across the supply chain."

The Meltdown Changed Everything for CPFR

Since the early days, I would say CPFR never became the big deal we all thought it would be when it was first introduced. Once the Internet meltdown or Dot.Com Bubble burst in 2000, the enthusiasm for CPFR waned despite there being ample evidence of its benefits that were gleaned from the early pilots of the program. Along with the World Wide Web, CPFR was going through its "trough of disillusionment." Companies discovered that it was difficult to scale up the piloted processes in order to collaborate with larger swatches of their retail-customer bases. Many suppliers just wound up implementing it (in its standardized form) with a few of their major, most-willing, and capable customers that were demanding it.

However, while CPFR in its original form ended up not being the perfect approach, I would say its introduction was an important watershed event for all types of electronic collaboration. It was instrumental in showing that "collaboration" as a concept throughout the supply chain could be leveraged to improve planning and operations. The term "CPFR" became associated with a variety of inventory co-management programs, such as Vendor Managed Inventory (VMI) and Supplier Managed Inventory (SMI), as well as forecast-sharing and other various types of downstream data sharing (including the sharing of channel and warehouse inventories, and warehouse withdrawals).

All these types of collaboration programs are very much alive today. Many CPG companies (e.g., General Mills, P&G, and Hershey's) have implemented successful co-inventory management programs such as VMI and, to a lesser extent, CPFR, with significant portions of their customer bases. High-tech companies, such as Dell and Cisco Systems, have important co-management inventory programs with their suppliers (i.e., SMI). Lastly, many manufacturers have implemented Just-in-Time (JIT) inventory replenishment programs to support production operations and that are driven by inventory replenishment forecasts being shared with their suppliers and contract-manufacturers.

Per the Gartner "Hype Cycle," we have reached a period of "enlightenment" for CPFR and are currently in a period of "productivity" that is not just about CPFR in its originally devised "standardized" form, but also, and more importantly, about a broader concept of supply chain collaboration. And with the possible exception of Collaborative Logistics Planning—which appears to have become a collaborative process of less interest—much of the collaboration is as depicted in Figure 1. So just like the recent Internet concepts, such as the Web 2.0 and 3.0, CPFR concepts have been successfully implemented, however, not in the same "standardized" ways we all thought they would over 14 years ago at the peak of the hype!

info@ibf.org

CPFR: Fact, Fiction, or Fantasy?

By Ron Burnette

EXECUTIVE SUMMARY | The article shows how the Collaborative, Planning, Forecasting and Replenishment program has evolved over time, what changes have occurred over time, and why. It also shows how the spirit of collaboration that germinated from this program spread in other areas both inside and outside the enterprise. At the end, the author gives a quiz so you can determine how much collaboration you have within your organization.

RON BURNETTE | Mr. Burnette is the Product Director at Logility, Inc. He has more than 20 years of experience in the development, support, and marketing of software, including financial, manufacturing, and collaborative supply chain business processes. He represents his company at the deployment working group of Collaborative Planning, Forecasting and Replenishment (CPFR) of Voluntary Interindustry Commerce Standards Association (VICS).

How has CPFR impacted business processes today? Has the original charter of companies sharing and mutually acting upon shared information come to fruition? Or has the collaboration morphed into something different and better? I will try to answer these and many other questions regarding the state of CPFR. But first we must start at the beginning.

The Birth of CPFR

Collaborative Planning, Forecasting and Replenishment (CPFR) has been around for quite some time. Born in 1995, it was co-led by Wal-Mart's vice president of supply chain and Benchmarking Partners, a software and research firm located in Cambridge, MA.

CPFR started out as CFAR, Collaborative Forecasting and Replenishment. To promote CFAR, specifications were posted on the web and more than 250 companies, including Sears, JC Penny, and Gillette, were briefed. According to a 1996 *Business Week* article, 20 companies were in the process of implementing CFAR.

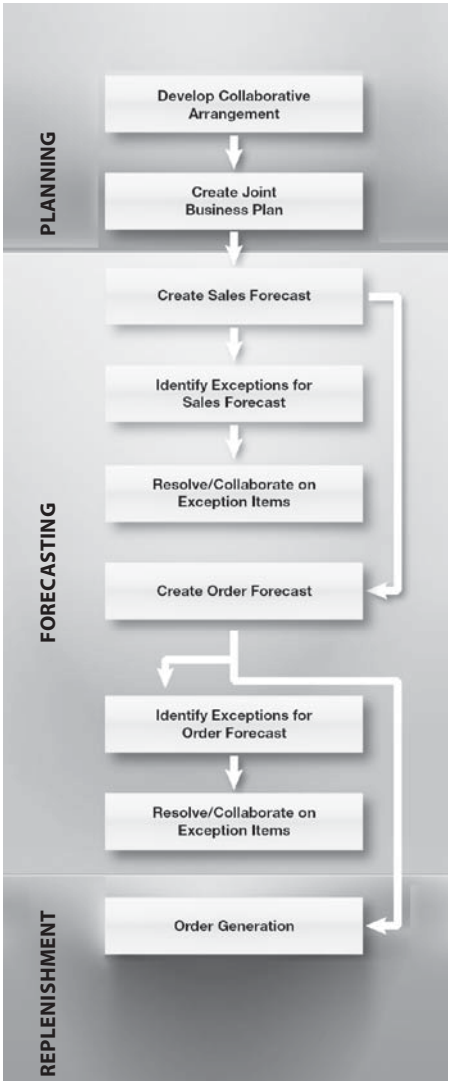
Benchmarking Partners then presented the CFAR standard to the Voluntary Interindustry Commerce Standards (VICS) to prepare CFAR as an international standard. Based on a suggestion from Procter & Gamble's vice president of supply chain, the standard was renamed CPFR to emphasize the role of "Planning" in the collaborative process framework.

THE CPFR Model

The CPFR model provides the basic framework for the flow of information, goods, and services between two trading partners (buyer/seller). Under the CPFR guidelines, trading partners develop a joint business plan to identify and codify the terms of their relationship including areas of responsibility, jointly developed calendars, guaranteed customer service levels, and timing of replenishment orders. In many CPFR arrangements these plans are defined in a formal agreement.

A key differentiator of CPFR is that it is an exception-driven process which allows trading partners to collaboratively review sales and order forecasts. Up until CPFR, most collaborative efforts were data driven and exceptions were not a part of the process. The exception-driven platform provides CPFR the scalability which other collaborative efforts such as Vendor Managed Inventory (VMI) and Efficient Consumer Response (ECR) could not. Processes such as VMI and ECR rely on external supply chains or ERP systems to identify sales forecasts or order forecast outliers. CPFR, however, was designed to incorporate these exceptions right into the process. For example, Step 4 of the nine steps of the original CPFR process was "Identify Exceptions for Sales Forecast Inputs." This allowed trading partners to compare their forecast and identify where they had a difference outside of allowed tolerances. Step 5 of CPFR was a defined process to determine how to resolve the differences in sales forecasts. This was a quantum leap forward from the data-driven VMI model in that the framework of the process identified the types of exceptions to look for and how to resolve them. It also addressed built-in latency issues that are inherent in a data driven process.

Figure 1 |
Nine Steps to the CPFR Process



Problems with the Original Model

While the concept of CPFR was groundbreaking, there were some design flaws in its initial framework. This original structure consisted of a rigid nine-step process (see Figure 1) that started with Step 1 and required companies to follow a set path to implement each successive step. While each step is an important criterion in establishing a collaborative environment, it left companies with little room for flexibility to meet their specific business requirements. Even with this limitation, many companies were very successful in their efforts to implement a CPFR process. In 2001, AMR Research identified several benefits early adopters realized from their CPFR initiatives (see Figure 2).

Figure 2 | Benefits Derived by Early Adopter

Retailer Benefits	Typical Improvement
Better Store-shelf Stock Rates	2% - 8%
Lower Inventory Levels	10% - 40%
Higher Sales	5% - 20%
Lower Logistic Costs	3% - 4%
Manufacturer Benefits	**Typical Improvement**
Lower Inventory Levels	10% - 40%
Faster Replenishment Cycles	12% - 30%
Higher Sales	2% - 10%
Better Customer Service	5% - 10%

A Case Study

A leading sports accessories supplier faced a tough challenge. The company had very little visibility into demand and therefore could not accurately predict how much product each retailer needed to have in stock. This was further complicated by the need to sell to large mass retailers as well as smaller specialty retailers. The first step was to grab the low-hanging fruit by implementing the Logility's Voyager Solutions. This covered forecasting (Demand Planning), inventory optimization (Inventory Planning), replenishment planning (Replenishment Planning), and a CPFR compliant solution—Voyager Collaborate. They quickly reduced forecast error by up to 25% at the customer level and increased visibility across their supply chain. This new-found visibility led to the realization

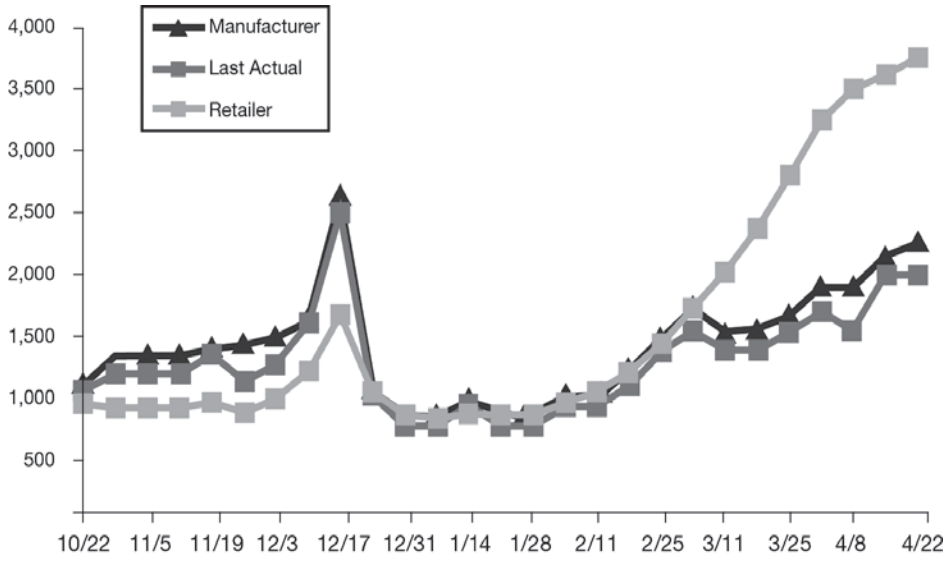
that more than just forecast accuracy that needed attention.

After reviewing the forecast each month, they noticed some anomalies with the buying patterns of one their key retail partners. This became the catalyst for a collaborative relationship with this mass retail partner, which was already involved in other CPFR initiatives. Soon the two companies were able to quickly identify the problem areas. Figure 3 shows where the exception-driven nature of CPFR quickly identified what the problem was. The retail partner ordered a product the product management team had already discontinued.

With a collaborative framework in place the supplier was able to work with the buyer to identify the problem and the way to resolve it. Through collaboration with the customer, one sporting goods accessory supplier:

- Increased sales by 20%
- Decreased inventory by 16%
- The supply chain team matured into a proactive planning and category management organization
- Identified additional collaborative opportunities starting with their Asian-based suppliers

Figure 3 | Anomalies in the Buying Patterns (Manufacturing vs Actual vs Retailer



Source: AMR Research

CPFR: Phase II

As with any good business process, CPFR evolved. The underlying tenets of CPFR were sound; however, the implementation structure was too rigid for many companies to implement. The original CPFR model was designed as a nine-step linear implementation. And, many companies believed they had to implement all nine steps before they became "CPFR compliant" and could realize the benefits of collaboration. For example, Steps 3, 4, and 5 focus on sharing and resolving conflicts with the sales forecast. Steps 6, 7, and 8 focus on the order forecast. Some companies only wanted to share order forecast information, but felt they had to implement Steps 3, 4, and 5 before they could begin the collaborative sharing process.

So, the CPFR committee at VICS went to work to revise the process. This led to the flexible CPFR model we know today. The new model incorporated the planning, management, and execution from the first model, and then added essential process steps that were previously missing and addressed the rigidity issues. Now, companies have the ability to decide which aspects to focus on; for example, sales forecasting vs. order forecasting, order generation vs. order fulfillment, and so on. Additionally, it added a structure of keeping a scorecard on collaboration.

This was a key addition to the new CPFR process. The focus, and rightly so, in the first version of CPFR was to identify exception conditions and direct trading partners on how to resolve those errors. The scorecard added the ability to "look back" and identify how well each trading partner performed. Did the manufacturer maintain the agreed upon days of supply with the retailer/distributor? Did the retailer/distributor give the manufacturer insight into their promotional plans in a timely manner? These and many other metrics could then be used to further fine-tune the collaborative efforts of each trading partner. This was quite different from some of the other "collaborative" processes such as VMI or ECR where one partner typically realized a disproportionate share of the benefits and workload.

CPFR Today

I started this article by asking some basic questions regarding the state of CPFR in today's business world. Well, there are no simple answers. One undeniable fact is that CPFR has spawned an ever-increasing interest in all types of collaboration.

I have seen an increase in internal collaboration, such as that between sales and marketing and supply chain teams. External collaboration

has grown with a keen focus on sharing information with customers, suppliers, and transportation carriers. While each of these collaboration efforts might not follow the set CPFR standards, the interest in information sharing and exception-based process management certainly has its roots in CPFR.

One can even argue that today's increased interest in Sales and Operations Planning (S&OP) was sparked by CPFR. When companies started their CPFR initiatives, they first had to look internally at the accuracy of their supply chain information to assess their confidence in the commitments they made to customers. In most cases, what they found wasn't pretty. Companies quickly embarked on ways to correct this, where S&OP was, and still is, the obvious solution.

So while companies may not rigidly follow the CPFR standards and guidelines, they certainly use its established framework to share information that can be mutually acted upon. The fact is that CPFR is here to stay.

Looking Ahead

Where do we go from here? Is there another phase in the cycle of CPFR evolution? I am not sure. One thing is for certain, the importance of collaboration is well understood and it is now one of the key initiatives of many of leading supply chain organizations around the world. The tools are available and best practice examples abound to bring to life collaboration, in whatever form works for your company. Just remember, technology provides the means, we have to supply the effort and commitment.

info@ibf.org

WHERE ARE YOU?

To determine where you are in the collaborative process, I have wrapped up this article with a little quiz. Keep a pencil handy to see how well you did. Answer either with Fact, Fiction, or Fantasy. Ready? Don't peak at the answers.

QUESTIONS

1. Technology = Collaboration?
2. The value of collaboration cannot be measured.
3. Collaboration is challenging?
4. Collaboration increases worker and enterprise productivity?
5. Collaboration should be the ultimate goal of your organization?

ANSWER

1. Technology = Collaboration? – Fantasy – This is a common misconception. Collaboration does not occur just because people or information are connected. 80% of software tools implemented are used to coordinate, communicate, and cooperate, as opposed to collaborate.

   If you want to achieve strategic value from collaboration, you must first cultivate a collaborative culture.
2. The value of collaboration cannot be measured. – Fiction – The value of collaboration can be measured. It is more difficult and complex than the typical internal business process since the nature of collaboration is to create change.

   To do that you need to define and assess fine-grained qualitative changes that occur from your collaborative efforts.
3. Collaboration is challenging? – Fact – Collaboration is not a natural human or organizational structure. Trust me, I know. It requires that team members are willing and motivated to invest time to listen and share ideas.

   To ensure excellence, your employees must have incentives as well as personal success measures and organizational measures in place. Also, celebrate your success.
4. Collaboration increases worker and enterprise productivity? – Fiction – Many organizations oversimplify collaboration under the guise of enhanced "worker productivity." The results of a collaborative initiative may be enhanced quality; however, the activity of collaborating may introduce additional work. The good news is that your valuable human resources will be focused on high-impact relationships.

   You need to be very clear about why people are collaborating and the impact this will have on their workload.
5. Collaboration should be the ultimate goal of your organization? – Fiction – The ultimate goal is to deliver upon your key metrics, such as profitability, perfect order levels, and high customer satisfaction levels. Collaboration is a proven method to increase your visibility, get closer to customers and consumers, and stand at the heart of most of your workplace initiatives.

   Business managers should understand that collaboration is an attribute of many different processes and that they need to create a culture and define business processes to support collaboration.

   How did you do? If you got 0 - 1 correct, please go to www.vics.org and tap into their excellent resource papers. 2 - 3 correct means that you are on the collaborative path. Keep doing what you're doing and you will successfully implement collaborative processes in your organization. 4 - 5 correct? I may be calling on you!

INTERNATIONAL ECONOMIC OUTLOOK

Fiscal Policy Exhaustion and Sovereign Risk Slow Down Global Recovery

By Evangelos Otto Simos

Dr. Simos is Director of Forecasting at e-forecasting.com, a division of Infometrica's Data Center, 65 Newmarket Road, Durham, NH 03824, U.S.A., www.infometrica.com, eosimos@e-forecasting.com. This report does not purport to be a complete description of global economic conditions and financial markets. Neither the *Journal* nor Infometrica, Inc. guarantee the accuracy of the projections, nor do they warrant in any way that the use of information or data appearing here in will enhance operational or investment performance of individuals or companies who use it. The views presented here are those of the author, and in no way represent the views, analysis, or models of Infometrica, Inc. and any organization that the author may be associated with.

I. Global Assessment and Outlook

Two of the sixteen members of the Euro Area—the European Union's bloc using the euro as its common currency—have been rescued. Greece received a bailout of 110 billion euros and Ireland's bailout hit 85 billion euros. Financial pressures from debt burdens and rising borrowing costs for several larger economies of the Euro Area have not yet reached their peak. It is expected that in 2011 Portugal and Spain will have large amounts of funding to roll over, in addition to immense incremental net borrowing requirements. The contagion fears seem to hit other large economies evidenced by elevated Italian bond spreads over German bonds. For 2011, it is estimated that Portugal and Spain will have funding requirements in excess of 250 billion euros and Italy's needs will be close to 340 billion euros.

Financial and sovereign debt problems in larger countries, like Spain and Italy, are not only far costlier to solve but they also have larger spillover effects on the banking institutions of other economies and, most importantly, on global growth by weakening international trade. Given a worldwide exhaustion with fiscal policy by both the public and governments—they now see deficit-driven stimuli and ballooning debts as the problem rather than the solution—fiscal consolidation is expected to dominate economic policy over the next two years.

Consequently, austerity programs on bailed-out countries will adversely affect their growth, jobs, incomes, and their imports. The larger the bailed-out country, the larger its adverse effect upon its major trading partner. For instance, Ireland is the fifth largest purchaser of United Kingdom's exports and Spaniards buy a lot of goods made in Germany, France, and Italy. At the same time, the Euro Area is the most important trading partner of the United States outside North America.

The ongoing European financial and sovereign risk crises, coupled with increased uncertainty from the loss of confidence in economic policy and newly emerged fears of geopolitical factors related to the Korean Peninsula have resulted in further trimming of our baseline economic forecast for Europe and subsequently spillover effects upon the rest of the world. In 2011, Euro Area is now forecast to grow by 1.4% and worldwide output to expand by 3.8%, about 1% lower than an estimated growth rate of 4.7% for 2010.

II. Short-Term Indicators and Forecasts

The baseline forecast incorporates major findings of the World Economic Survey conducted by the German Ifo Institute and the Paris-based International Chamber of Commerce. In the results of the survey, which was conducted in the fourth quarter of 2010, about 1,100 executives from 113 countries indicated that although the world's economic climate continued to improve in the fourth quarter of 2010, the pace of growth has slowed for a second quarter in a row. The recent overall readings of the worldwide survey are consistent with a continuation of the global recovery but at a slower pace than in 2009 and in the first half of 2010. The major findings of the fourth quarter's survey are as follows.

- Worldwide, executives evaluated the economic situation of the fourth quarter of 2010, favorably with overall business conditions at satisfactory levels. They found economic activity in their countries to be a lot better than in the fourth quarter of 2009. Most important, regarding the future, executives expect economic conditions in the first half of 2011 to be better than those that prevailed in the last quarter of 2010.
- On a regional basis, **North American** executives assessed the current economic situation to be still at unsatisfactory levels but significantly better than a year ago. Looking forward, business experts from the United States and Canada expect economic conditions to improve in the next six months compared to the fourth quarter of 2010. In **Asia,** executives appraised the current economic situation as above satisfactory levels and at substantially higher performance levels than a year ago; they were not equally confident about the future, expecting economic activity in the next six months to be about the same as in the fourth quarter of 2010. In **Western Europe,** executives' appraisals of current conditions were again below satisfactory levels but significantly above economic activity that they experienced in the fourth quarter of 2009; expectations of European business executives on future economic conditions signaled a slight improvement in economic activity in the next two quarters.
- With respect to prices, survey participants expect average worldwide inflation over the next two quarters to accelerate from current levels.
- Looking at world trade, the business executives' combined expectations call for the volume of both exports and imports to be higher in the next two quarters compared to trade flows during the fourth quarter of 2010.

Using the "soft data" findings of the World Economic Survey, a 113-country composite global business activity index is constructed by ***e-forecasting*** to evaluate and forecast the short-term worldwide business cycle. A reading of 50, the flatline, is used as reference in evaluating the wave of alternating booms and busts that mark the global economy. In the fourth quarter of 2010, our global business activity index registered 57, which is just one point above the previous quarter and the second quarterly above-fifty reading in a row since the fourth quarter of 2008, confirming the end in the global recession.

e-forecasting's global activity index tracks quarterly and in a timely way economic conditions around the world. Its historic behavior is consistent with the index of industrial production for a group of 23 advanced economies, the so-called industrial countries, constructed by "hard data" and maintained by the International Monetary Fund (IMF). However, the IMF's industrial production index lags behind our diffusion indicator in terms of timeliness by two to three quarters. The ***e-forecasting*** global activity index is a "real time" indicator providing readings at the end of the last month of the reference quarter.

Historically, changes in our global activity index mirror the growth rate of worldwide industrial production (see Chart 1). Based on the real time behavior of our indicator, industrial activity in the

Chart 1 | Predicting Global Industrial Activity

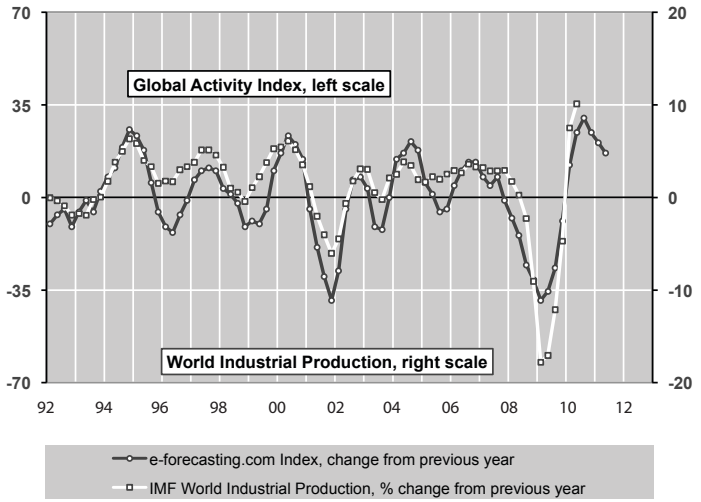
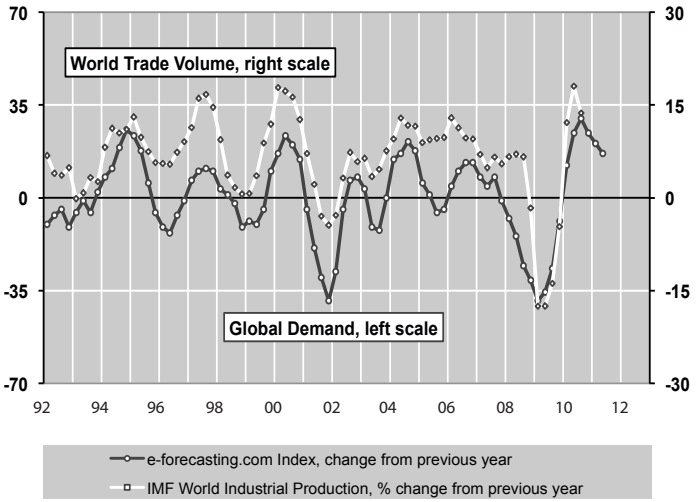


Chart 2 | Predicting World Trade



world's advanced economies is estimated to continue advancing in the fourth quarter of 2010 but at a slower pace than in the previous quarter.

By modeling business executives' two-quarter-ahead expectations into a dynamic high frequency forecast, we predict the expansion in the global business activity index to continue in the next two quarters. However, growth in global industrial production is forecast to slow down in the first two quarters in 2011, following a steep acceleration in the first three quarters of 2010.

Our composite index of global economic activity also serves as an indicator of worldwide demand and, consequently, its change from a year ago mirrors the year-to-year growth rate in the demand for internationally traded goods and services. Derived from the opinions of about 1,100 business experts from 113 countries, ***e-forecasting's*** composite global activity index has shown a strong performance record in tracking the volume of international trade, measured by global exports adjusted for price changes (see Chart 2).

Following a decline in the last quarter of 2009 at an annual rate of 5.5%, the volume of international trade recovered and its growth rate peaked in the second quarter of 2010 at an annual rate of 18%. However, based on our index, growth in the volume of worldwide trade is estimated to have decelerated in the last quarter of 2010. In addition, the predictive power of our global activity index suggests that growth in the volume of world trade will further decelerate in the first two quarters of 2011.

III. Regional Contributions to Global Growth

In our baseline annual forecast, global output—a worldwide composite of 60 countries that account for 94% of the world's GDP using as weights each country's relative GDP converted to international dollars at purchasing-power-parity (PPP)—is estimated to have increased 4.7% in 2010 following a decline of 8% in 2009. Growth in global output is forecast to slow down to 3.8% in 2011 and then accelerate to 4.2 percent in 2012.

Given the relative economic size and expected output growth in each of the major regional blocs, the contribution of each region to overall global economic growth is computed and presented in Table 2. This unique regional contributions-to-growth analysis helps identify the distribution of worldwide growth and, consequently, the allocation of global demand among geographic areas along with its changing pattern over the forecast horizon.

The baseline forecast calls for output in the countries of the **North America** region (NAFTA) to advance by 2.2% in 2011. Therefore, NAFTA will contribute just 1.5% to the growth in global demand

Table 1 | Global Economic Growth and Inflation

REGION	Market Size 2009 GDP $PPP Billion	Economic Growth percent change in real GDP				Inflation percent change in consumer prices			
		2009	2010	2011	2012	2009	2010	2011	2012
WORLD	**64,988**	**-0.8**	**4.7**	**3.8**	**4.2**	**2.3**	**3.6**	**3.0**	**2.8**
EUROPEAN UNION (27)	**14,773**	**-4.1**	**1.3**	**1.7**	**2.1**	**0.9**	**1.9**	**1.8**	**1.7**
Euro Area (16)	**10,533**	**-4.0**	**1.0**	**1.4**	**1.8**	**0.3**	**1.5**	**1.5**	**1.5**
Austria	323	-3.9	1.3	1.6	1.8	0.4	1.5	1.7	1.7
Belgium	383	-2.7	1.3	1.7	1.7	0.0	2.0	1.9	1.9
Cyprus	23	-1.7	0.4	1.8	2.5	0.2	2.2	2.3	2.5
Finland	179	-8.0	1.8	2.0	1.9	1.6	1.4	1.8	1.7
France	2,094	-2.5	1.4	1.6	1.8	0.1	1.6	1.6	1.7
Germany	2,812	-4.7	1.9	2.0	2.0	0.2	1.3	1.4	1.4
Greece	333	-2.0	-3.6	-2.3	1.1	1.4	4.6	2.2	0.5
Ireland	173	-7.6	-1.0	1.0	2.4	-1.7	-1.6	-0.5	0.8
Italy	1,738	-5.0	0.8	1.0	1.4	0.8	1.6	1.7	1.8
Luxembourg	39	-4.1	2.0	3.1	3.0	0.4	2.3	1.9	1.5
Malta	10	-2.1	1.7	1.7	2.0	1.8	1.9	2.1	2.2
Netherlands	659	-3.9	1.5	1.7	1.7	1.0	1.3	1.1	1.3
Portugal	241	-2.6	0.6	-0.1	0.6	-0.9	0.9	1.2	1.3
Slovak Republic	115	-4.7	3.0	4.3	4.4	0.9	0.7	1.9	2.4
Slovenia	55	-7.8	1.7	2.4	3.0	0.9	1.5	2.3	2.5
Spain	1,358	-3.7	-0.7	0.7	1.8	-0.2	1.5	1.1	1.3
Non-Euro Area (11)	**4,239**	**-4.3**	**1.9**	**2.3**	**2.9**	**2.6**	**2.9**	**2.6**	**2.1**
Bulgaria	90	-5.0	0.0	2.0	4.0	2.5	2.2	2.9	3.0
Czech Republic	253	-4.1	2.0	2.2	3.5	1.0	1.6	2.0	2.0
Denmark	197	-4.7	2.0	1.9	2.2	1.3	2.0	2.0	2.0
Estonia	24	-13.9	1.8	2.9	3.4	-0.1	2.5	2.0	2.0
Hungary	186	-6.3	0.6	2.0	3.0	4.2	4.7	3.3	3.0
Latvia	32	-18.0	-1.0	3.1	4.0	3.3	-1.4	0.9	1.0
Lithuania	55	-14.8	1.3	2.9	2.6	4.2	1.0	1.3	1.3
Poland	688	1.7	3.4	3.8	3.9	3.5	2.4	2.7	3.0
Romania	255	-7.1	-1.9	1.5	4.4	5.6	5.9	5.2	3.0
Sweden	334	-5.1	4.4	2.6	3.0	2.0	1.8	1.9	2.0
United Kingdom	2,125	-4.9	1.7	1.8	2.3	2.1	3.1	2.5	1.7
OTHER EUROPE	**3,850**	**-6.8**	**3.9**	**3.8**	**3.9**	**9.1**	**6.6**	**6.4**	**5.9**
Norway	252	-1.4	0.9	1.8	2.3	2.2	2.5	1.4	2.5
Russia	2,116	-7.9	4.3	4.3	4.4	11.7	6.6	7.4	6.5
Switzerland	313	-1.9	1.8	1.8	1.8	-0.5	0.7	0.5	0.9
Turkey	879	-4.7	4.5	3.6	3.7	6.3	8.7	5.7	6.0
Ukraine	289	-15.1	3.8	4.5	4.8	15.9	9.8	10.8	9.3
NORTH AMERICA	**16,861**	**-3.0**	**2.9**	**2.2**	**2.5**	**0.2**	**1.7**	**1.2**	**1.6**
Canada	1,278	-2.5	3.1	2.4	2.5	0.3	1.8	2.0	2.0
Mexico	1,464	-6.5	5.0	2.9	3.8	5.3	4.2	3.2	3.0
United States	14,119	-2.6	2.6	2.1	2.3	-0.3	1.4	1.0	1.4
SOUTH AMERICA	**3,843**	**-0.2**	**6.4**	**4.2**	**3.9**	**6.7**	**7.2**	**7.3**	**7.2**
Argentina	583	0.9	7.5	5.1	3.0	6.3	10.6	10.6	11.0
Brazil	2,010	-0.2	7.5	4.5	4.1	4.9	5.0	4.6	4.6
Chile	243	-1.5	5.0	5.8	4.6	1.7	1.7	3.0	3.0
Colombia	407	0.8	4.7	4.1	4.6	4.2	2.4	2.6	3.2
Peru	251	0.9	8.3	4.6	5.7	2.9	1.7	2.5	2.0
Venezuela	349	-3.3	-1.3	-0.5	1.0	27.1	29.2	32.2	29.9
ASIA & PACIFIC INDUSTRIAL	**6,479**	**-3.2**	**3.5**	**2.1**	**2.7**	**0.0**	**0.5**	**1.0**	**1.2**
Australia	849	1.2	3.0	3.2	3.5	1.8	3.0	3.0	3.0
Japan	4,152	-5.2	2.8	1.2	2.0	-1.4	-1.0	-0.3	0.2
Korea	1,362	0.2	6.1	3.8	4.2	2.8	3.1	3.4	3.0
New Zealand	115	-1.6	3.0	3.3	3.1	2.1	2.5	5.5	2.4
EMERGING ASIA	**16,597**	**6.3**	**9.6**	**7.4**	**7.7**	**2.9**	**5.8**	**3.9**	**3.0**
China	9,047	9.1	10.5	8.5	8.6	-0.7	3.5	2.7	2.0
Hong Kong	301	-2.8	6.0	4.2	4.3	0.5	2.7	3.0	2.5
India	3,615	5.7	9.7	8.1	8.0	10.9	13.2	6.7	4.7
Indonesia	961	4.5	6.0	5.9	6.5	4.8	5.1	5.5	5.4
Malaysia	383	-1.7	6.7	4.2	5.2	0.6	2.2	2.1	2.3
Pakistan	439	3.4	4.8	2.5	4.0	20.8	11.7	13.5	9.5
Philippines	324	1.1	7.0	4.7	4.5	3.2	4.5	4.0	4.0
Singapore	251	-1.3	15.0	4.1	4.4	0.6	2.8	2.4	2.1
Taiwan	735	-1.9	9.3	3.1	4.7	-0.9	1.5	1.5	1.5
Thailand	539	-2.2	7.5	3.9	4.3	-0.8	3.0	2.8	2.5
MIDDLE EAST & AFRICA	**2,586**	**1.0**	**3.2**	**4.0**	**4.1**	**9.1**	**7.6**	**7.1**	**7.1**
Egypt	469	4.7	5.3	5.4	5.7	16.2	11.7	10.0	9.0
Iran	811	1.1	1.6	3.0	3.0	10.8	9.5	8.5	10.0
Israel	208	0.8	4.2	3.3	4.2	3.3	2.3	2.8	2.5
Saudi Arabia	594	0.6	3.4	4.5	4.4	5.1	5.5	5.3	4.5
South Africa	504	-1.8	3.0	3.7	3.9	7.1	5.6	5.8	5.6

The 60 countries in this table account for 93% of world's estimated GDP expressed in PPPs in 2008

Source: www.e-forecasting.com

in 2011, although NAFTA's market size is 26% of the global market.

In the **Euro Area,** the combined real GDP of the 16 members of the European Union (EU) that use the Euro as common currency is forecast to edge up 1.4% in 2011, thus contributing just 6% to the increase in the world's real GDP.

In the **Emerging Asia** region, which includes the two most populous and fastest growing countries, China and India, real output is forecast to grow by 7.4% in 2011, faster than any other economic bloc does. In 2011, the Emerging Asia area will contribute 52% to the growth of global demand. The two largest countries of the bloc—China and India—are forecast to contribute nearly one-half (45%) of the world's demand in 2011.

In the industrial bloc of the **Asia and Pacific** region, which includes Japan, Korea, Australia, and New Zealand—growth in output is forecast to register 2.1% in 2011, thus contributing 5% to the growth of global demand.

Real GDP in the major countries in **South America** is forecast to increase by 4.2% in 2011. The region has become again an important and vital part of the global economy. In 2011, South America is forecast to contribute 7% to the growth of global demand, which is more than the individual contributions of the United States and the Euro Area. *info@ibf.org*

Table 2 | Contribution of Regions to Global Growth

	Percentage Points Contribution				Relative Contribution, Percent			
REGION	**2009**	**2010**	**2011**	**2012**	**2009**	**2010**	**2011**	**2012**
EUROPEAN UNION (EU27)	**-0.96**	**0.29**	**0.37**	**0.46**	**-123.3**	**6.1**	**9.6**	**11.0**
Euro Area (euro16)	-0.67	0.16	0.22	0.27	-86.3	3.4	5.8	6.6
Non-Euro Members (11)	-0.29	0.12	0.14	0.18	-36.9	2.7	3.7	4.4
OTHER EUROPE	**-0.43**	**0.23**	**0.23**	**0.23**	**-54.8**	**4.9**	**5.9**	**5.6**
NORTH AMERICA	**-0.78**	**0.75**	**0.56**	**0.62**	**-100.3**	**16.0**	**14.7**	**14.8**
United States	-0.58	0.57	0.45	0.48	-74.5	12.3	11.7	11.6
SOUTH AMERICA	**-0.01**	**0.38**	**0.25**	**0.23**	**-1.6**	**8.1**	**6.7**	**5.6**
ASIA & PACIFIC INDUSTRIAL	**-0.32**	**0.35**	**0.20**	**0.27**	**-41.4**	**7.6**	**5.4**	**6.4**
EMERGING ASIA	**1.50**	**2.45**	**1.99**	**2.13**	**192.2**	**52.5**	**52.2**	**51.4**
China & India	1.45	1.99	1.72	1.82	185.5	42.7	45.1	43.7
MIDDLE EAST & AFRICA	**0.04**	**0.13**	**0.16**	**0.16**	**5.2**	**2.7**	**4.1**	**3.9**
WORLD GROWTH[1]	**-0.8**	**4.7**	**3.8**	**4.2**	**100.0**	**100.0**	**100.0**	**100.0**

[1]Sum of Regional Contributions

Source: www.e-forecasting.com

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China's New Urban Centers and How They Change the Economic Map	**Ran Xu** *Associate Director, Custom Research, North Asia*	**Economist Intelligence Unit**
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New Product Forecasting & Planning – Issues, Experience and Success Factors	**Alok Kumar Sengupta** *Manager – Business Development*	**AnalyticsMerck and Co. Inc (MSD India)**

The Economic Outlook for 2011

By Jack Malehorn

The information in this forecast is gathered by *The Journal* from sources it considers reliable. Neither *The Journal* nor the individual institutions providing the data guarantee accuracy; nor do any of them warrant in any way that use of the data appearing herein will enhance the business or investment performance of companies or individuals who use them. Jack Malehorn is a professor at Georgia Military College (Milledgeville, Georgia). He is on the Editorial Review Board to the *Journal of Business Forecasting*. He has worked as President and CEO of The Black Hill Manufacturing Co., and COO of NorCom Advanced Technologies. He has also worked as Chief Economist for United Telephone Company of Pennsylvania and New Jersey, which is an operating company of Sprint. He has taught as an Adjunct Professor at Johns-Hopkins University, Graduate School of Business. For any comments and suggestions, contact him by email at Jmalehorn@yahoo.com.

PARTICIPANTS | Conf Board = Conference Board, New York, New York; Global Insight = Global Insight, Eddystone, Pennsylvania; GSU - EFC = Georgia State University, Economic Forecasting Center, Atlanta, Georgia; Moody's Economy = Moody's Economy.com, Westchester, Pennsylvania; Mortgage = Mortgage Bankers Association, Washington, D.C.; NAM = National Association of Manufacturers, Washington, D.C.; Northern Tr = Northern Trust Company; Chicago, Illinois; Perryman Gp = The Perryman Group, Waco, Texas; S&P = Standard & Poors, New York, New York; US Chamber = U.S. Chamber of Commerce, Washington, D.C.; Wells Fargo = Wells Fargo Bank, San Francisco, California.

"It was the best of times, it was the worst of times..."

is the opening line in Charles Dickens classic, *A Tale of Two Cities.*

It seemed appropriate to mention the Charles Dickens classic as the salient theme in this quarter's economic outlook. Given the immense uncertainty surrounding the state of the economy, you would naturally expect quite divergent points of view unfolding. True, I cannot really find anyone who argues a glowing and positive assessment of the nation's economy; still, there are those who believe we are not far removed from a more robust recovery than presently experienced. On the other hand, there exists a contingent with a far less sanguine point of view. Let us proceed to the analysis….

Dr. Rajeev Dhawan, Director of the Economic Forecasting Center at Georgia State University's J. Mack Robinson College of Business wrote in his quarterly *Forecast of the Nation* an article entitled, "Abnormality: The Economy's New Normal." In it, he paints a compelling case of an apparent structural shift that has occurred in the economy. Dhawan says, "The new normal in the nation's economy is the abnormal and we have to make peace with it." As such, using as reference points historical economic experiences for comparison purposes is futile. The reason for his pessimism is linked to depressed home values, ballooning entitlements, the divided political arena, and a shaky banking system. Bottom line: Dhawan believes real economic growth, i.e., real GDP will

PARTICIPANTS		GROSS DOMESTIC PRODUCT (GDP) Bill. of Chained 2005 Dollars, Level				PERSONAL DISPOSABLE INCOME (Based on GDP Concept) Curr. Bil. of $, Level (SAAR)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**	**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	13323.9	13360.9	13427.1	13487.8	11532.6	11614.4	11697.8	11796.0
Fannie Mae	Doug Duncan	13398.9	13495.7	13598.6	13710.0	11409.9	11459.8	11535.5	11613.2
Global Insight	Nigel Gault	13413.2	13480.1	13563.3	13671.9	NA	NA	NA	NA
GSU-EFC	Rajeev Dhawan	13386.9	13456.7	13538.9	13619.6	11522.6	11620.1	11726.9	11841.5
Moody's Economy	Mark Zandi	13429.7	13526.9	13629.4	13764.3	11550.0	11685.1	11832.2	11994.0
Morgan Stanley	Richard Berner	NA	NA	NA	NA	NA	NA	NA	NA
Mortgage	Jay Brinkman	13392.9	13461.4	13542.5	13628.3	11415.6	11454.4	11516.1	11584.8
NAM	David Huether	13412.0	13493.3	13592.5	13728.0	11551.4	11688.6	11838.2	12001.9
Northern Tr	Paul Kasriel	13421.0	13517.3	13619.4	13738.0	NA	NA	NA	NA
Perryman Gp	Ray Perryman	13473.7	13581.3	13692.4	13809.8	11599.4	11740.7	11878.6	12037.0
S & P	David Wyss	13430.0	13502.0	13593.0	13707.0	11528.0	11614.0	11702.0	11811.0
UBS	Maury Harris	13441.3	13535.2	13630.5	13732.6	11584.5	11709.5	11839.9	11976.0
US Chamber	Martin Regalia	13414.0	13504.1	13608.5	13713.4	NA	NA	NA	NA
Wells Fargo	John Silvia	13407.6	13482.3	13562.6	13658.1	NA	NA	NA	NA
Consensus		**13411.2**	**13492.1**	**13584.5**	**13689.9**	**11521.6**	**11620.7**	**11729.7**	**11850.6**

PARTICIPANTS		UNEMPLOYMENT (CIVILIAN – %) | (SAAR)				TOTAL LIGHT VEHICLE SALES (FOR & DOM.) | Mil. of Units (SAAR)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**	**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	9.9	10.0	9.8	9.7	11.9	12.3	12.5	12.8
Fannie Mae	Doug Duncan	9.8	9.7	9.7	9.7	12.4	12.6	13.0	13.4
Global Insight	Nigel Gault	9.7	9.7	9.6	9.5	12.1	12.5	13.0	13.6
GSU-EFC	Rajeev Dhawan	9.7	9.6	9.4	9.4	12.2	12.6	12.8	13.0
Moody's Economy	Mark Zandi	10.0	10.0	9.9	9.7	12.1	12.3	12.7	13.2
Morgan Stanley	Richard Berner	NA	NA	NA	NA	NA	NA	NA	NA
Mortgage	Jay Brinkman	9.8	9.8	9.5	9.4	12.4	12.6	12.9	13.2
NAM	David Huether	10.0	10.1	10.1	9.8	12.1	12.3	12.7	13.2
Northern Tr	Paul Kasriel	10.0	9.8	9.5	9.0	11.8	12.0	12.2	12.5
Perryman Gp	Ray Perryman	9.5	9.3	9.0	8.8	12.4	12.4	12.7	12.6
S & P	David Wyss	9.7	9.6	9.5	9.4	12.2	12.5	13.0	13.6
UBS	Maury Harris	9.4	9.3	9.2	9.0	NA	NA	NA	NA
US Chamber	Martin Regalia	9.5	9.2	9.2	9.0	NA	NA	NA	NA
Wells Fargo	John Silvia	9.9	9.8	9.7	9.5	11.8	11.9	12.1	12.4
Consensus		**9.8**	**9.7**	**9.5**	**9.4**	**12.1**	**12.4**	**12.7**	**13.0**

PARTICIPANTS		PERSONAL CONSUMPTION EXPENDITURE (Based on GDP Concept) Curr. Bil. of $, Level (SAAR)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	10552.7	10621.4	10709.4	10802.7
Fannie Mae	Doug Duncan	10568.5	10649.8	10736.3	10822.2
Global Insight	Nigel Gault	NA	NA	NA	NA
GSU-EFC	Rajeev Dhawan	10601.1	10685.7	10777.3	10872.3
Moody's Economy	Mark Zandi	10481.3	10575.5	10688.2	10822.6
Morgan Stanley	Richard Berner	NA	NA	NA	NA
Mortgage	Jay Brinkman	10541.2	10605.7	10682.9	10779.0
NAM	David Huether	10484.2	10582.1	10697.3	10833.5
Northern Tr	Paul Kasriel	NA	NA	NA	NA
Perryman Gp	Ray Perryman	10612.3	10722.0	10848.8	10982.5
S & P	David Wyss	10609.0	10694.0	10796.0	10916.0
UBS	Maury Harris	10621.7	10739.0	10888.4	11047.2
US Chamber	Martin Regalia	NA	NA	NA	NA
Wells Fargo	John Silvia	NA	NA	NA	NA
Consensus		**10563.6**	**10652.8**	**10758.3**	**10875.3**

PARTICIPANTS		CHAINED (2000) | PRICE INDEX (Level)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	111.6	111.9	112.2	112.5
Fannie Mae	Doug Duncan	112.0	112.2	112.4	112.6
Global Insight	Nigel Gault	111.7	111.9	112.3	112.6
GSU-EFC	Rajeev Dhawan	111.7	112.0	112.4	112.7
Moody's Economy	Mark Zandi	111.5	111.8	112.1	112.5
Morgan Stanley	Richard Berner	NA	NA	NA	NA
Mortgage	Jay Brinkman	111.7	111.8	111.9	112.1
NAM	David Huether	111.6	112.1	112.5	112.91
Northern Tr	Paul Kasriel	111.9	112.2	112.7	113.3
Perryman Gp	Ray Perryman	112.3	112.9	113.6	114.1
S & P	David Wyss	111.7	112.0	112.4	112.7
UBS	Maury Harris	112.2	112.4	112.9	113.6
US Chamber	Martin Regalia	NA	NA	NA	NA
Wells Fargo	John Silvia	111.7	111.9	112.2	112.6
Consensus		**111.8**	**112.1**	**112.5**	**112.9**

be far below annual growth rates we had become accustomed to during the mid-90s until recently. Dhawan continues: Another abnormality the country will be living with stems from adoption of the second phase of the Fed's quantitative easing, or QE2, strategy of buying treasury bonds, or "printing money" as he called it. Facing an economy resting on the edge of a deep precipice, the so-called double dip recession, the Fed must provide adequate liquidity. "Although it did spark a stock market rally, which was the intended effect, it also resulted in a simultaneous drop in the dollar." Dhawan said the QE2 strategy will help the economy indirectly by raising inflationary expectations, which will boost the equity market. Furthermore a weak dollar will boost exports, especially to emerging markets. These factors, said Dhawan, will hopefully increase CEO confidence, which will be the key to investment and job creation. "When CEOs feel optimistic and confident, they tend to lobby and convince their boards that the situation is right to expand the scale of operations," said Dhawan. He noted that the "CEO Confidence Index is up sharply from its nadir in late 2008. Because of this we saw job growth in 2010, but the investment driving that growth was primarily to replace obsolete equipment—not for new additions. As a result," he added, "I don't think the 15% plus tech investment rate that is necessary to accelerate job growth can be attained in the face of fiscal uncertainty and political gridlock in Washington."

On the other hand, Dr. Mark Zandi from Moody's paints a fairly upbeat scenario in his most recent work entitled, "Near Term Threats, Improving Fundamentals." Zandi gives credence to the emotional weight of overt pessimism currently embracing the economy. Uncertainty over the extension of the Bush Tax Cuts has many unnerved; Zandi notes the difficulty of the present economy trying to digest over $200 billion in tax increases if

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Congress does nothing. This coupled with an estimated more than 1 million unemployed workers losing their unemployment insurance during the holiday season will certainly not improve the current state of the recovery. Still there are positive developments. For one, Zandi cites the importance of world governments not being tempted into erecting trade barriers or investment and immigration restrictions similar to those experienced during the Great Depression. In addition, he notes record corporate earnings as a harbinger of good things to come. In an insightful analysis, Zandi takes this perspective directly into the boardrooms across America. Business leaders who realize that earnings will begin to slow from just cost cutting will naturally migrate to an aggressive search for growth opportunities, thus stimulating both investment and hiring. As Zandi puts it: It is not a matter of whether or not they are capable; it is more about their willingness. In turn, he believes households that arduously have deleveraged by taking advantage of the declining cost of credit and building savings have fed a growing pent-up demand for vehicles and other consumer durables. Finally, he believes that the banking and credit markets have successfully restructured and should be more willing to lend in the future.

The question rises: Given these different outlooks, what does it mean vis-à-vis the future? Let's look to the Consensus for answers. The Consensus Outlook calls for continued subdued growth albeit positive for 2011 at a slightly better than 2% rate in real GDP.

Households

The indicators linked to household growth are not overly optimistic. Given a recalcitrant housing market and early less than optimistic holiday sales data, it is not anticipated that households will singly lead the way in the new year. Nominal DPI and PCE are expected to grow near 3%, still below normal recovery levels from the past. As you can ascertain from the Outlook Table, unemployment is expected to show little improvement over the year due to less than needed job creation and an increasing concern over structural unemployed—those who have lost their jobs and do not have the skills or education to successfully reenter the workforce.

Total light vehicle sales remain relatively flat according to our Outlook Table. Housing starts are abysmally soft. There is no doubt that the greatest detriment to resurgence in consumer led growth is the mood of consumers, in general. Whether or not this can be turned around abruptly is the question.

Business

The Consensus calls for modest growth across business barometers. The strategically critical non-residential fixed investment is expected to rise roughly 5%. Capacity utilization rates are expected to advance albeit at a snail's pace. The key to a resurging business environment will undoubtedly be found in Washington. If the characteristic gridlock can be worked out on issues surrounding taxes and regulations regarding healthcare reform, then these numbers may improve in future editions of the Outlook.

Inflation

The one bright spot in the economy over the last two years has been the lack of inflationary price pressures. In fact, the concern has been more about the likelihood of deflation. The Outlook calls for modest price pressure during the year at or near 1%. Still, in the long run, some nervousness is apparent relative to the aggressive position by the Fed and core price components such as food and gas.

Money, Interest, and the Fed

In this section, the Fed once again commands center stage. Undoubtedly the Fed will have its fingers on the pulse of the nation. Whether it can keep the patient alive without shocking it to death via overstimulation is going to be a delicate balancing act. M2—the most widely watched gauge of monetary policy intent—is expected to be at a near 3% growth range. The Fed Funds rate is anticipated to advance some but still in unprecedented territory. The AAA bond rate is expected to move up gradually during the year.

A Holiday Note

It is our fervent wish that you have a most enjoyable and blessed holiday season. At this time, it seems only appropriate to publically recognize many participants who contribute so generously to this effort during the year. Without them this publication would certainly not be forthcoming!

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PARTICIPANTS		CONSUMER PRICE INDEX (1982-1984=100) | LEVEL				INDUSTRIAL CAPACITY UTILIZATION (SAAR)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**	**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	219.3	219.9	220.6	221.4	NA	NA	NA	NA
Fannie Mae	Doug Duncan	219.1	219.6	220.1	220.6	73.0	73.3	73.5	73.8
Global Insight	Nigel Gault	220.2	220.8	221.7	222.8	73.1	73.5	74.2	74.5
GSU-EFC	Rajeev Dhawan	220.4	221.2	221.9	222.9	72.6	72.8	73.3	73.9
Moody's Economy	Mark Zandi	219.6	220.5	221.6	222.8	73.7	74.5	75.3	76.2
Morgan Stanley	Richard Berner	NA	NA	NA	NA	NA	NA	NA	NA
Mortgage	Jay Brinkman	219.0	219.4	220.0	220.6	73.3	73.4	73.5	73.6
NAM	David Huether	219.7	220.6	221.6	222.9	73.7	74.4	75.2	76.1
Northern Tr	Paul Kasriel	219.8	220.4	221.5	222.9	74.8	74.2	73.6	73.5
Perryman Gp	Ray Perryman	219.8	221.2	222.5	223.7	78.1	77.9	78.5	78.7
S & P	David Wyss	220.7	221.3	222.3	223.4	73.3	73.8	74.6	75.0
UBS	Maury Harris	220.2	220.6	222.1	223.5	76.2	76.9	77.6	78.3
US Chamber	Martin Regalia	220.3	221.2	222.2	223.2	NA	NA	NA	NA
Wells Fargo	John Silvia	219.7	220.7	221.7	222.9	NA	NA	NA	NA
Consensus		***219.8***	***220.6***	***221.5***	***222.6***	**74.2**	**74.5**	**74.9**	**75.4**

PARTICIPANTS		FEDERAL FUNDS RATE %				AAA CORPORATE BOND RATE %			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**	**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	0.2	0.2	0.2	0.2	4.5	4.5	4.8	5.0
Fannie Mae	Doug Duncan	0.2	0.2	0.2	0.2	4.7	4.8	5.0	5.1
Global Insight	Nigel Gault	0.1	0.1	0.1	0.2	4.4	4.4	4.5	4.6
GSU-EFC	Rajeev Dhawan	0.1	0.2	0.2	0.2	4.6	4.9	5.3	5.8
Moody's Economy	Mark Zandi	0.1	0.1	0.1	0.3	4.3	4.6	4.9	5.5
Morgan Stanley	Richard Berner	NA	NA	NA	NA	NA	NA	NA	NA
Mortgage	Jay Brinkman	0.2	0.2	0.2	0.2	4.9	4.8	4.8	4.9
NAM	David Huether	0.2	0.2	0.1	0.1	4.3	4.6	4.9	5.5
Northern Tr	Paul Kasriel	0.2	0.2	0.2	0.2	N/A	N/A	N/A	N/A
Perryman Gp	Ray Perryman	0.2	0.5	0.8	1.3	4.8	5.3	5.6	5.7
S & P	David Wyss	0.1	0.1	0.1	0.2	4.4	4.4	4.4	4.5
UBS	Maury Harris	NA	NA	NA	NA	NA	NA	NA	NA
US Chamber	Martin Regalia	0.3	0.3	0.3	0.3	NA	NA	NA	NA
Wells Fargo	John Silvia	0.1	0.1	0.1	0.1	4.5	4.4	4.5	4.6
Consensus		**0.2**	**0.2**	**0.2**	**0.3**	**4.6**	**4.7**	**4.9**	**5.1**

PARTICIPANTS		NON-RESIDENTIAL FIXED INVESTMENT (Bil. of Chained 2005 Dollars)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	1417.5	1423.8	1440.5	1448.1
Fannie Mae	Doug Duncan	1455.8	1489.6	1523.9	1559.9
Global Insight	Nigel Gault	1418.0	1433.0	1451.0	1470.0
GSU-EFC	Rajeev Dhawan	1442.8	1469.6	1495.2	1521.3
Moody's Economy	Mark Zandi	1424.8	1443.8	1462.2	1485.0
Morgan Stanley	Richard Berner	NA	NA	NA	NA
Mortgage	Jay Brinkman	1447.2	1478.9	1513.1	1550.0
NAM	David Huether	1424.3	1442.4	1460.0	1482.5
Northern Tr	Paul Kasriel	1434.9	1463.6	1497.1	1534.2
Perryman Gp	Ray Perryman	1431.0	1457.3	1470.8	1491.7
S & P	David Wyss	1419.8	1434.1	1452.9	1472.8
UBS	Maury Harris	1429.3	1452.3	1485.7	1520.1
US Chamber	Martin Regalia	1,445.2	1,466.7	1,489.3	1,514.3
Wells Fargo	John Silvia	1478.4	1516.5	1554.0	1595.4
Consensus		**1436.1**	**1459.4**	**1484.3**	**1511.2**

PARTICIPANTS		MONEY SUPPLY M2 Bil. of $ | (Level, SAAR)				PRIVATE HOUSING START TOTAL Mil. Units | (SAAR)			
Quarter		**11/1**	**11/2**	**11/3**	**11/4**	**11/1**	**11/2**	**11/3**	**11/4**
Conf. Board	Ken Goldstein	8873.4	9010.0	9141.8	9266.7	1	1	1	1
Fannie Mae	Doug Duncan	8461.6	8292.7	8134.1	7999.7	0.61	0.67	0.75	0.81
Global Insight	Nigel Gault	8855.5	8986.1	9104.9	9229.5	0.64	0.72	0.82	0.95
GSU-EFC	Rajeev Dhawan	8898.1	9040.9	9186.7	9311.0	0.64	0.73	0.76	0.83
Moody's Economy	Mark Zandi	8846.6	8924.2	8997.3	9079.6	0.64	0.70	0.82	0.97
Morgan Stanley	Richard Berner	NA	NA	NA	NA	NA	NA	NA	NA
Mortgage	Jay Brinkman	NA	NA	NA	NA	0.58	0.64	0.67	0.74
NAM	David Huether	8847.8	8926.6	9001.4	9086.5	0.6	0.70	0.82	0.98
Northern Tr	Paul Kasriel	NA	NA	NA	NA	0.55	0.56	0.58	0.60
Perryman Gp	Ray Perryman	8822.7	8938.5	9047.4	9178.0	0.70	0.76	0.80	0.82
S & P	David Wyss	8868.1	9009.9	9133.0	9260.8	0.64	0.71	0.82	0.95
UBS	Maury Harris	NA	NA	NA	NA	NA	NA	NA	NA
US Chamber	Martin Regalia	NA	NA	NA	NA	0.64	0.69	0.71	0.75
Wells Fargo	John Silvia	8850.0	9000.0	9100.0	9225.0	0.64	0.70	0.78	0.82
Consensus		**8813.8**	**8903.2**	**8983.0**	**9070.8**	**0.63**	**0.69**	**0.75**	**0.83**

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LAS ALIANZAS CON SUS SOCIOS ESTRATEGICOS: UNA MANERA DE CONSTRUIR VALOR

POR: VIRGILIO RAMON M.
DIRECTOR EJECUTIVO DE ASEM SOLUTIONS LTDA

El manejo integral de los proveedores se ha convertido en uno de los ejes estratégicos de la gerencia moderna para la generación de "valor añadido"[1]; pues al ser el primer "eslabón" de la Cadena de Suministro, permite dinamizarla; situación que se refleja en mejoras en competitividad, lo que se traduce en mejoras de la capacidad de gestión y, precisamente, de generación de "valor añadido" en las organizaciones.

De acuerdo con lo anterior y con el propósito de construir valor, es necesario considerar a los proveedores como sus "aliados estratégicos" y al estrechar su relación, se les da a conocer con anticipación el plan de requisiciones para que ellos se encarguen de ejecutarlo de acuerdo con las condiciones establecidas de calidad, costo, plazo y servicio postventa; por lo que su participación será activa y por lo tanto; las partes obtendrán beneficios mutuos; a partir de la premisa "GANAR – GANAR"; pero para llegar a la situación comentada; es necesario generar "confianza"; ya que de esta manera, la cadena de suministro resulta fortalecida, lo que se traduce en costos bajos y por ende una mejora en competitividad, vía reducción de costos; pues como lo afirma Michael Porter "la lealtad histórica o problemas con los proveedores puede afectar costos de los insumos, el acceso a insumos, durante los periodos de escasez y servicios proporcionados por los proveedores"[2].

Las organizaciones al contar con una base de proveedores que estén codificados, clasificados y segmentados, garantiza, de una parte, una gestión más confiable, disminuyendo el riesgo del aprovisionamiento; y de otra parte, ahorra recursos en su manejo y administración.

Las organizaciones, sin proponérselo, ven como su base de proveedores cada día se va incrementando y en un momento determinado, se llega a no saber cuantos se tienen y con cuántos se tienen relaciones comerciales, incurriendo en unos costos innecesarios.

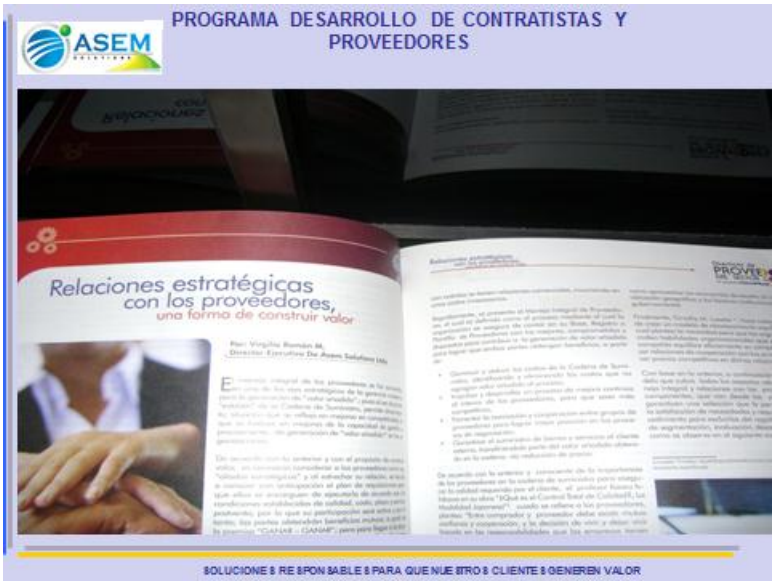
Seguidamente, se presenta el Manejo Integral de Proveedores, el cual es definido como el proceso mediante el cual la organización se asegura de contar

[1] Capacidad de generar excedentes que logre sorprender a los clientes. Por lo tanto debe considerarse, como todo aquello por lo que el cliente esta dispuesto a pagar; ya que satisface sus necesidades y al satisfacerlas experimenta placer. Fidelidad del cliente. Dicho en otras palabras, el bien o servicio que se recibe el cliente supera sus expectativas.

[2], PORTER Michael. Ventaja Competitiva. Creación y Sostenimiento de un Desempeño Superior. CECSA. Méjico; P.109

en su Base, Registro o Plantilla de Proveedores con los mejores, comprometidos y dispuestos para contribuir a la generación de valor añadido para lograr que ambas partes obtengan beneficios; a partir de:

- ✓ Disminuir y reducir los costos de la Cadena de Suministro, identificando y eliminando los costos que no agregan valor añadido al proceso,
- ✓ Impulsar y desarrollar un proceso de mejora continúa al interior de los proveedores, para que sean más competitivos,
- ✓ Fomentar la asociación y cooperación entre grupos de proveedores para lograr mejor posición en los procesos de negociación.
- ✓ Garantizar el suministro de bienes y servicios al cliente externo, transfiriéndole parte del valor añadido obtenido en la cadena, vía reducción de precio.



De acuerdo con lo anterior y consciente de la importancia de los proveedores en la cadena de suministro para asegurar la calidad requerida por el cliente, el profesor Kaoru Ishikawa en su obra "Qué es el Control Total de Calidad La Modalidad Japonesa"[3] cuado se refiere a los proveedores, plantea:

"Entre comprador y proveedor debe existir mutua confianza y cooperación, y la decisión de vivir y dejar vivir basada en las responsabilidades que las empresas tienen respecto al público".

Continuando con la obra del profesor Ishikawa[4], él plantea diez principios que se deben seguir para garantizar un control de calidad entre comprador y proveedor, que van desde la responsabilidad de cada uno de ellos por la aplicación del control total de calidad, pasando por la independencia, el compartir información, la realización de acuerdos y/o contratos, la responsabilidad del proveedor de entregar bienes de calidad, acuerdos de metodologías de evaluación y la responsabilidad de pensar siempre en el consumidor final.

---

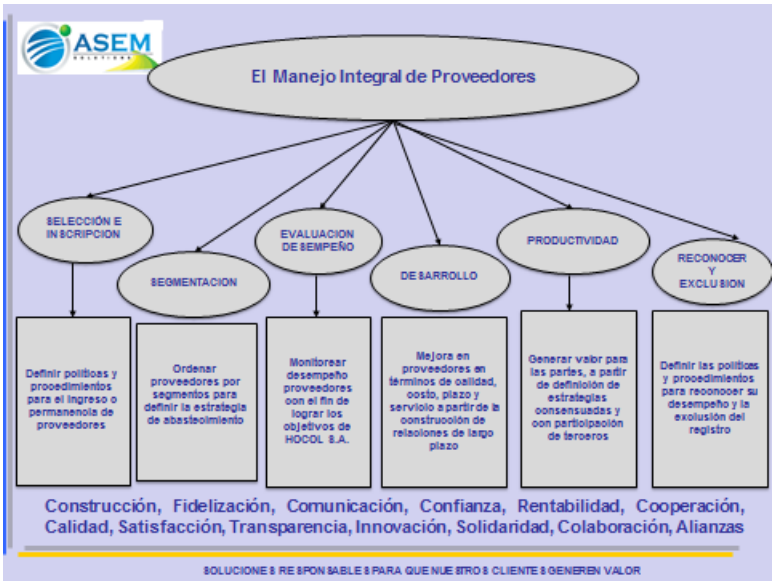
[3] Ishikawa Kaoru. Què es el Control Total de Calidad. La Modalidad Japonesa. Bogota: Norma , 1985[Op. Cit.p.153]

[4] Ibid.. Op. Cit. p. 153

Para Porter, cuando presenta las cinco[5] fuerzas competitivas en que se fundamente la estrategia competitiva, los proveedores es una de ellas. Parte de la base que se deben establecer relaciones comerciales de largo plazo para que contribuyan a la generación de valor añadido, basados en la confianza, transparencia, fundamentando esas relaciones en las reducciones de costos y para lo cual planteo directrices como aprovechar las economías de escala, la integración, la ubicación geográfica y los factores institucionales de política gubernamental .

Finalmente, Timothy M. Laseter[6], hace notar la importancia de crear un modelo de abastecimiento equilibrado y para lo cual plantea la necesidad para que las organizaciones desarrollen habilidades organizacionales que permiten que una compañía equilibre eficazmente su compromiso de establecer relaciones de cooperación con los proveedores y establecer precios competitivos en dichas relaciones.

Con base en lo anterior, a continuación se presenta un modelo que cubre todos los aspectos relacionados con el manejo integral y relaciones con los proveedores. Incluye seis componentes, que van desde las políticas y criterios que garanticen una selección que le permita a la organización la satisfacción de necesidades y requerimientos hasta el procedimiento para excluirlos del registro, tocando los aspectos de segmentación, evaluación, desarrollo y productividad, tal como se observa en el siguiente esquema:



5 Porter Michael. Op. Cit. p.24

6 Laseter Timothy. ALIANZAS ESTRATEGICAS CON PROVEEDORES. Un modelo de abastecimiento equilibrado

Selección e Inscripción:

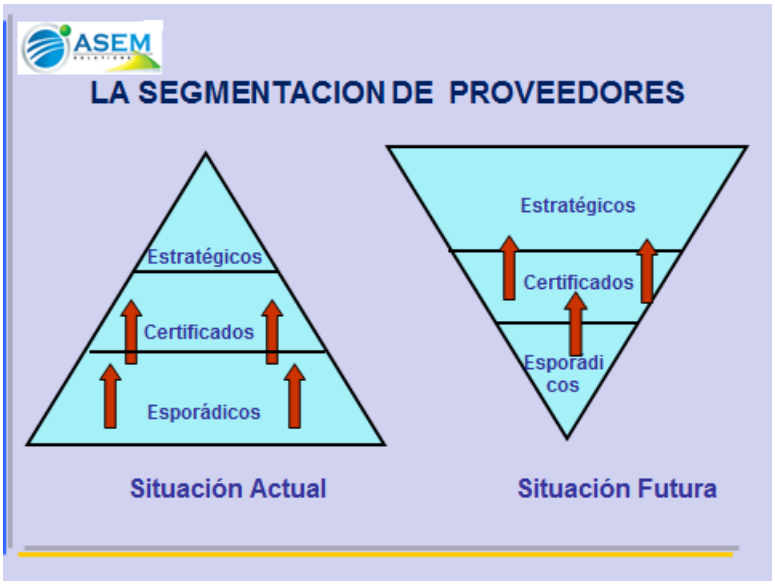
- ✓ La organización debe contar con un registro de proveedores, que garantice el suministro de los bienes y servicios de acuerdo con sus necesidades y en las condiciones definidas en el proceso de negociación.

- ✓ De esta manera, la calidad del registro y el número de proveedores se convierte en el medio más no en la meta, pues lo que se busca es garantizar el suministro. Ante esta situación, la organización debe fijar unas políticas y estrategias, que deben estar alineadas con las políticas y estrategias corporativas, para consolidar la base de proveedores; que le permita contar con "lo mejor de lo mejor" que exista en el mercado de suministros, a nivel local e internacional y para conseguirlo debe fortalecer el proceso de inteligencia del mercado de suministros.

Segmentación:

- ✓ Al segmentar la Base de Proveedores se busca que los proveedores centren su operación en el suministro de los bienes y servicios que fundamentan su negocio, lo que permite definir la estrategia de abastecimiento de acuerdo con el Plan Estratégico y le contribuye al proveedor a fortalecer sus líneas de negocios y por ende lograr un mayor nivel de especialización.

- ✓ Dependiendo de la manera como los proveedores impacten a la organización será la segmentación; por lo tanto, para cada segmento, se tendrán estrategias, relaciones comerciales y manejos diferentes.

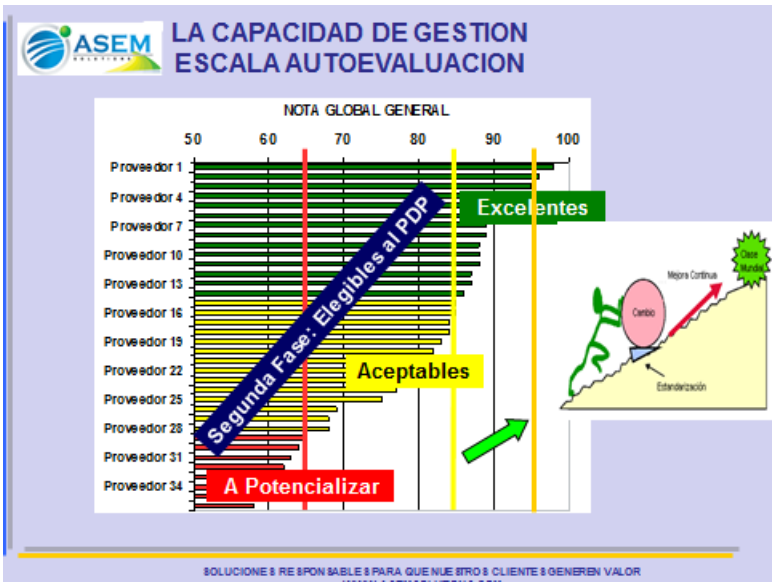


Evaluación del desempeño:

Una vez definida la segmentación de los proveedores, el paso siguiente es establecer como ha sido su Evaluación del desempeño, con el fin de:

- ✓ Identificar las oportunidades de mejora.
- ✓ Disminuir el riesgo del aprovisionamiento a partir de la disminución de los retrasos en la Cadena de Suministro.
- ✓ Dar criterio a los encargados de negocios para que tomen decisiones con base en el desempeño y así dar transparencia a la asignación de negocios.
- ✓ Potencializar la capacidad del proveedor y/o contribuir a la mejora de su motivación.
- ✓ Verificar el comportamiento y seguimiento de la capacidad de cumplimiento del proveedor
- ✓ Lograr que todos los proveedores estén por encima de la calificación definida como objetivo estratégico de la Organización.

El cumplimiento de los objetivos presentados, depende en gran parte, de la manera como se realice la evaluación para llegar a lograr lo que se muestra en la siguiente gráfica:



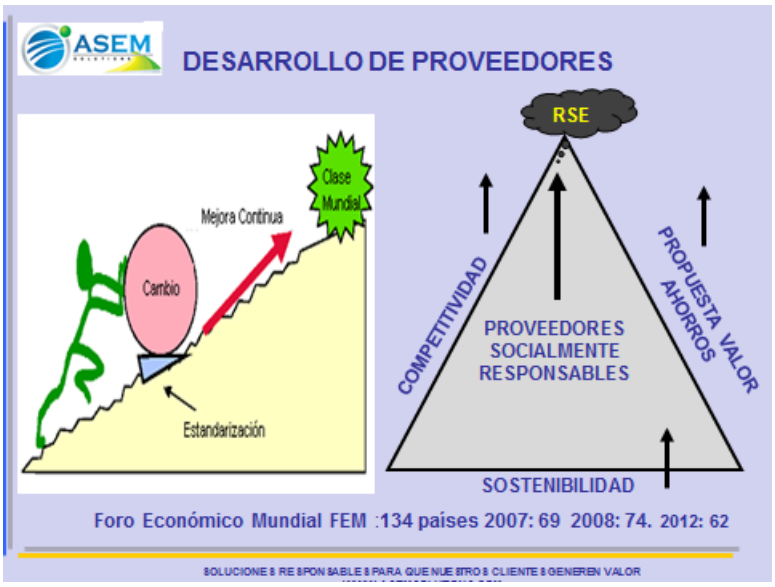
Desarrollo:

El Desarrollo de Proveedores es el conjunto de acciones integradas y coordinadas que apuntan al fortalecimiento de las relaciones con los Proveedores de la organización.

Cuando se implanta un Programa de este tipo, lo que se busca es aumentar la Productividad y Competitividad de las cadenas productivas de los proveedores que la integran y que forman parte de la red que suministran las materias primas, insumos y demás bienes y servicios que la organización requiera, de acuerdo con cada uno de los segmentos definidos.

Un programa de este tipo para el caso Colombiano se fundamenta debido a que las organizaciones actualmente se encuentra que el 20% de los proveedores suministran el 80% de los bienes y servicios y que el 80% de los proveedores suministran el 20% de los bienes y servicios. (Relación que en dinero tiene el mismo comportamiento: el 80% del presupuesto de compras es asignado al 20% de los proveedores). Esta situación ha originado una gran cantidad de proveedores catalogados como “pequeños” que buscan una participación en el 20% de los presupuestos de compras; pero que al trabajar de manera aislada, no pueden dar soluciones a sus problemas internos para que sean proveedores más competitivos o si cabe el calificativo de “clase mundial”.

En la siguiente gráfica se muestra el objetivo de un PDP:

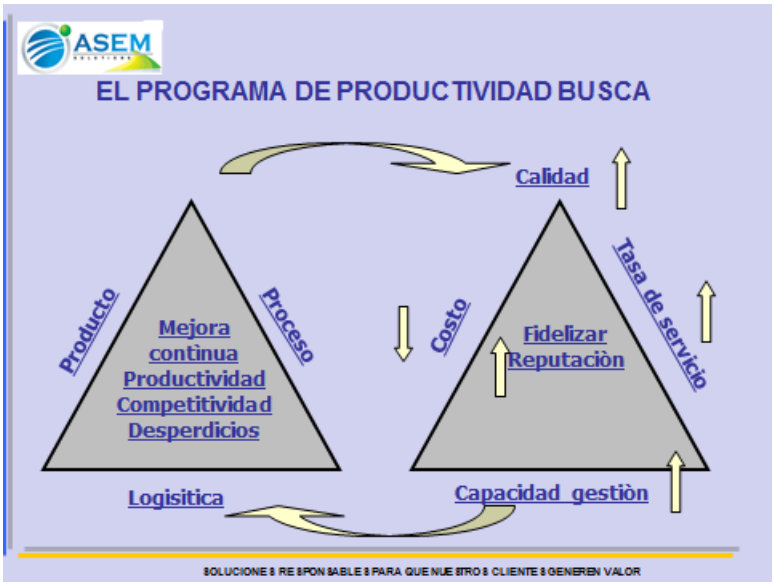


Productividad:

Los programas de productividad de los proveedores, al igual que el de desarrollo, tienen su justificación en la responsabilidad social que tienen las organizaciones grandes para jalonar a las pequeñas; pues al tener en cuenta que en los países tercermundistas, gran parte de la economía es gestionada por la pequeña empresa; resulta apenas lógico esta situación; ya que para evitar o disminuir la desarticulación que existe entre la gran empresa y los proveedores pequeños; estos últimos deben evolucionar al mismo ritmo de las grandes organizaciones; para:

- ✓ Incrementar el nivel de productividad y competitividad en los proveedores, especialmente, de los estratégicos y así contribuir a mejorar el tejido industrial del país.
- ✓ Participar en los beneficios que la relación gana gana genere.

En la gráfica siguiente se presenta lo que busca un Programa de Productividad de proveedores:



Reconocimiento y Exclusión:

Los objetivos del reconocimiento de los proveedores hace referencia con:

- ✓ Informar los resultados de periodos anteriores y hacer notar la importancia de ellos en el logro de los mismos.
- ✓ Informar el Plan Estratégico de la Compañía en materia de requerimientos con vista a más de un año.
- ✓ Afianzar la relación Empresa Proveedor (Gana Gana) .

- ✓ Reconocer públicamente a los Proveedores que por segmentos hayan obtenido las mejores evaluaciones.
- ✓ Invitarlos a que continúen generando valor para la cadena.

Mientras que con los de la exclusión se busca:

- ✓ Racionalizar el Registro de Proveedores para garantizar que se cuente con los que realmente generen valor.
- ✓ Disminución de costos y optimización de recursos humanos, administrativos, tecnológicos e informáticos
- ✓ Establecer el procedimiento para excluir un proveedor de la plantilla de la organización
- ✓ Definir las áreas responsables de formalizar la exclusión

PROGRAMA DE DESARROLLO DE PROVEEDORES (PDP). UNA MANERA DE CONSTRUIR RELACIONES SOCIALMENTE RESPONSABLES CON SUS PROVEEDORES

Por: Virgilio Ramón M.
Director Ejecutivo de ASEM SOLUTIONS LTDA
Experto en implantación de PDP.
Consultor internacional en Cadenas Productivas
www.asemsolutions.com
info@asemsolutions.com

INTRODUCCIÓN

En el presente artículo se analiza la importancia que tiene para las organizaciones "grandes" el implementar un Programa de Desarrollo de Proveedores o PDP, que contribuya a fortalecer las relaciones con aquellos proveedores que no tienen el músculo operativo y financiero necesario pero que si contribuyen al crecimiento del negocio y a la generación de valor a lo largo de la cadena de suministro.

El PDP debe enmarcarse des de dos ámbitos. El primero, relacionado con la necesidad de construir alianzas estratégicas con los proveedores y el segundo; desde la Responsabilidad Social Empresarial que deben ejercer las organizaciones son todos sus actores con los cuales interactùa.

Los dos ámbitos descritos basados en la confianza, la cooperación y la solidaridad, es lo que permite que la relación Proveedor – Cliente – Proveedor sea exitosa y que al crecer la organización todos crecerán al mismo tiempo y es lo que permite afirmar que "todos somos socialmente responsables".

1.1 El Programa de Desarrollo de Proveedores PDP

En el mundo globalizado las organizaciones, con el propósito de ser más competitivas, han tenido que mirar hacia su interior; es decir, sus esfuerzos se han enfocado a mejorar la cadena de suministro, en donde uno de los actores principales son los proveedores, pues, cualquier desarticulación genera desequilibrios, cuyas implicaciones se traducen en sobrecostos; por lo que la relación con ellos es uno de los eslabones que fortalece la cadena; pues como lo afirma Michael Porter "la lealtad histórica o problemas con los proveedores puede afectar costos de los insumos, el acceso a insumos, durante los periodos de escasez y servicios proporcionados por los proveedores"[1].

De acuerdo con lo anterior, las organizaciones han iniciado un proceso para construir alianzas estratégicas con sus proveedores, basadas en la cooperación, la solidaridad y la responsabilidad empresarial, en donde la "gran empresa" contribuye al fortalecimiento y desarrollo de las PYMES y en consecuencia, confia en el potencial que ellas tienen, pues son conscientes de la importancia de actuar en un mercado globalizado y competido en donde lo fundamental es lograr la

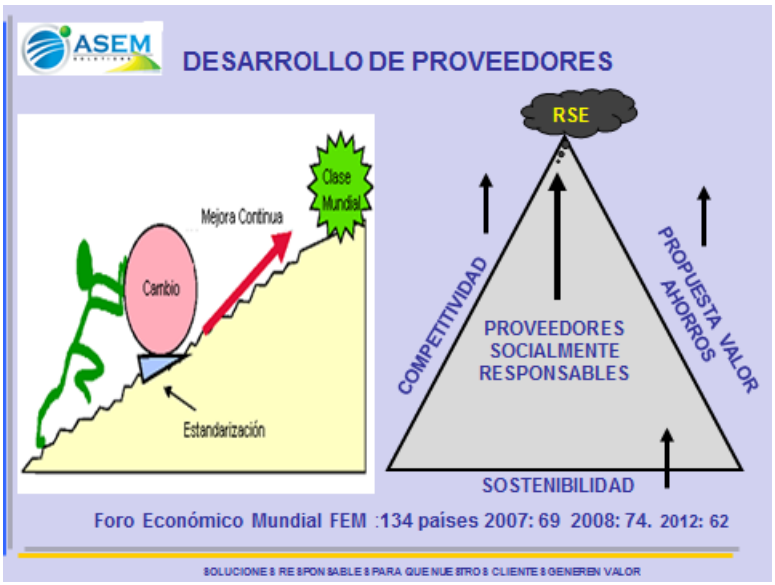
1 Porter Michael, Ventaja Competitiva. Creación y Sostenimiento de un Desempeño Superior. CECSA. Méjico 1995.,p.109

generación de valor pero siendo socialmente responsables, garantizado un desarrollo integral y sostenible para todos sus actores.

Las consideraciones anteriores son las que sustentan un Programa de Desarrollo de Proveedores –PDP- , ya que la “gran empresa” o “empresa ancla - EA”, además del compromiso de dinamizar la cadena de suministro tienen la responsabilidad de jalonar el crecimiento de las pequeñas empresas, respetando su autonomía e independencia; ya que es una manera de contribuir a la distribución de la riqueza y por consiguiente a lograr un crecimiento y garantizar un desarrollo sostenible.

Los PDP en el contexto mundial no son nuevos; pero para el caso Colombiano y Latinoamérica requiere de la voluntad política y de las iniciativas de las EA para llevarlo a cabo y así poder vencer las barreras entre los Grandes y Pequeños empresarios, entre los paradigmas sobre la capacidad y las competencias de los empresarios locales, y la generación de confianza entre las partes como un argumento diferenciador.

En la siguiente gráfica se muestra lo que se busca con un PDP



La razón de ser del PDP

Construir relaciones de largo plazo entre la EA y sus proveedores, fundamentadas en principios y valores compartidos que garanticen la sostenibilidad mediante el mejoramiento continuo de competencias administrativas, comerciales, técnicas, productivas y financieras en beneficio de los actores que participan en la cadena; de tal manera que le permita a la alta dirección de la EA obtener respuesta para las siguientes preguntas

- Con qué proveedores contamos?
- Satisfacen nuestras expectativas?
- Garantizan el cumplimiento del plan estratégico?
- Son socialmente responsables?

La Fundamentaciòn del PDP

El PDP y tal como se muestra en la gráfica siguiente, se fundamenta en cuatro principios:

1. Cooperación
2. Transparencia
3. Solidaridad
4. Responsabilidad social empresarial

Objetivos y Postulados del PDP

A continuación se presentan los objetivos y postulados que se deben tener en cuenta al momento de diseñar un PDP

- Consolidar y ampliar las oportunidades de negocio entre las EA y PYMES para el suministro de bienes y servicios
- Acompañar a los proveedores, en la implementación de planes de mejora a corto, mediano y largo plazo para lograr el estándar requerido por las EA y el mercado nacional.
- Contribuir al fortalecimiento del tejido empresarial del país.
- Proveedores socialmente responsables

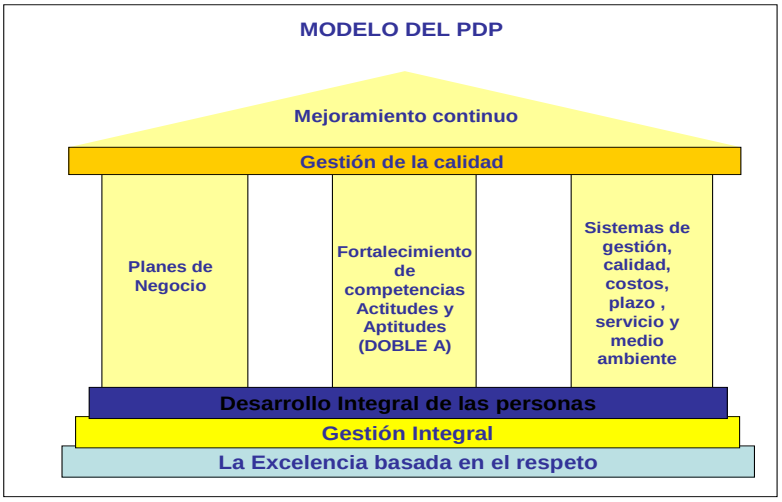
En la medida en que la EA crezca y su demanda crezca, crecerán los proveedores. Lo que es motivo de mutua satisfacción.

La generación de valor, se obtiene a partir de la construcción de relaciones de confianza que mejore la productividad de los negocios, generando para las partes, beneficios sostenibles en el tiempo

La relación con los proveedores se fundamenta en la transparencia, la cooperación, la solidaridad y la responsabilidad social empresarial, para crear valor con las PYMES, como proveedores socialmente responsables

La arquitectura del PDP

El PDP está diseñado para lograr la mejora continua y para lograrlo tiene como base el desarrollo integral de las personas para buscar la excelencia y cuenta con tres columnas que se articulan entre si para buscar la “calidad” en todas sus actuaciones, tal como se observa en la siguiente gráfica.



Los Beneficios del PDP

Empresas Ancla:

- Aplicación de políticas de “Responsabilidad Social Empresarial”
- Mejoras en el proceso de abastecimiento (calidad, costo, plazo). Fiabilidad
- Fortalecimiento de relaciones comerciales con proveedores

PYMES:

- Fortalecimiento de sus sistemas de gestión
- Mejoras en productividad y competitividad
- Crecimiento y sostenibilidad

SOCIEDAD:

- Generación de empleo y Fomento al emprendimiento
- Desarrollo de la economía regional
- Mejoramiento en la calidad de vida y en la redistribución de ingresos
- Sostenibilidad

GOBIERNO:

- Desarrollo industrial y Promoción de economías autónomas e independientes
- Aplicación de políticas de “Acción Social”
- Mayores ingresos tributarios y Sostenibilidad

COMUNIDAD:

- Participes del programa

Las Fases del PDP

Finalmente, en la siguiente grafica se presenta las fases del PDP.

El autor, con base en la experiencia que ha tenido en este campo, recomienda que se debe ser muy cuidadoso, al abordar cada una de ellas y utilizar las herramientas adecuadas para su desarrollo.

Si requiere mayor información sobre el tema y está interesado en implementar un PDP favor consultar a info@asemsolutions.com

UNIVERSIDAD DE LA SABANA
INSTITUTO DE POSTGRADOS- FORUM

RESUMEN ANALÍTICO DE INVESTIGACIÓN (R.A.I)

ORIENTACIONES PARA SU ELABORACIÓN:

El Resumen Analítico de Investigación (RAI) debe ser elaborado en Excel según el siguiente formato registrando la información exigida de acuerdo la descripción de cada variable. Debe ser revisado por el asesor(a) del proyecto. EL RAI se presenta (quema) en el mismo CD-Room del proyecto.

No.	VARIABLES	DESCRIPCIÓN DE LA VARIABLE
1	NOMBRE DEL POSTGRADO	Gerencia Logística
2	TÍTULO DEL PROYECTO	Diseño de un modelo de colaboración con proveedores para Distoyota. PARA DISTOYOTA.
3	AUTOR(es)	Rodriguez Vanegas Erika Adriana, Marín Ariza Diana Carolina
4	AÑO Y MES	2013 Enero
5	NOMBRE DEL ASESOR(a)	Jarrín Jairo Alberto
6	DESCRIPCIÓN O ABSTRACT	Distoyota ha evidenciado que tiene oportunidades de mejora en su proceso de abastecimiento que le permitirían obtener mejoras a nivel interno que se reflejarían ante el cliente final. Por este motivo este trabajo de grado propone un modelo de colaboración con proveedores que le permita a la compañía obtener acuerdos favorables para mejorar los resultados del área de compras. Este modelo contempla una serie de pasos entre los que se destacan la generación y control de indicadores de gestión, así como el diseño y puesta en marcha de un acuerdo con sus tres principales proveedores, así como un modelo de seguimiento y control del mismo. Distoyota have evidenced having opportunities to improve its procurement process which would permit improvements internally to be reflected to the final customer. Therefore this work proposes a collaboration´s model with suppliers that allows the company to obtain favorable agreements to improve outcomes shopping area. This model includes a series of steps that stand between the generation and control of management indicators, and the design and implementation of an agreement with its three main suppliers, and a model for monitoring and control.
7	PALABRAS CLAVES	Modelo de Colaboración, Indicadores de Gestión, Acuerdo de principio a fin.
8	SECTOR ECONÓMICO AL QUE PERTENECE EL PROYECTO	Sector automotriz
9	TIPO DE ESTUDIO	Investigación aplicada.
10	OBJETIVO GENERAL	Aumentar la eficiencia del proceso de compras a fin de incrementar los niveles de satisfacción del cliente interno, obteniendo mejores precios de los bienes y servicios adquiridos para lograr una reducción de costos tanto operativos como de adquisición, apoyados en un plan de colaboración con proveedores.
11	OBJETIVOS ESPECÍFICOS	• Realizar un diagnóstico del estado actual del proceso de compras de DISTOYOTA que identifique oportunidades, fortalezas, debilidades y amenazas. • Diseñar un sistema de evaluación inicial y periódica de proveedores que se ajuste a los requerimientos de la compañía y que permita medir la capacidad de los mismos para ofrecer bienes y servicios. • Diseñar un modelo de colaboración con proveedores para DISTOYOTA, que incluya: - Planeación y acuerdos participativos. - Visibilidad de la demanda, pronósticos de pedidos y datos promocionales de DISTOYOTA, para poder anticiparse y satisfacer así la demanda futura. - Fijación conjunta de metas, alcance de la colaboración y asignación de roles, responsabilidades y puntos de control.
12	RESUMEN GENERAL	Se busca presentar a DISTOYOTA un modelo de colaboración con proveedores CPFR (Collaborative Planning, Forecasting & Replenishment) que permita mejorar los tiempos de respuesta de las solicitudes de compra, reducir costos al momento de ejecutar las compras y generar un mayor conocimiento de sus proveedores como aliados estratégicos. Hoy en día a las organizaciones les cuesta incrementar su rentabilidad a través del aumento en las ventas, por lo que los proyectos enfocados al aumento de la productividad o la reducción de costos son una oportunidad para lograr dicho incremento. Particularmente el proyecto aquí presentado requiere de una baja inversión y sus resultados pueden verse en el corto plazo. Toyota se ha caracterizado por desarrollar proyectos de mejoramiento y desarrollar a lo largo de su historia una cultura de calidad lo que representa un espacio apto para el desarrollo de este tipo de iniciativas. Para la presentación de este modelo a Distoyota se inició con un diagnóstico que permitiò determinar el estado actual del proceso de compras de Distoyota, para luego plantear el modelo CPFR en una serie de pasos que permiten su desarrollo de manera rápida. El proyecto se desarrollará inicialmente con los tres proveedores más importantes para Distoyota y se busca poder replicarlo posteriormente a la totalidad de los mismos.
13	CONCLUSIONES.	Teniendo en cuenta la experiencia exitosa de este tipo de iniciativas a nivel mundial se considera que el proyecto tiene una alta posibilidad de cumplir con los objetivos planteados. El proyecto se convierte en una buena alternativa para lograr obtener una ventaja comercial frente a la competencia, gracias a la optimización de tiempos de entrega, reducción de las rupturas de stock, reducción en cosos de almacenamiento y control de inventarios. Las estrategias actuales de las empresas están enfocadas en construir una diferenciación no orientada al producto sino en servicio y experiencias alrededor de este, teniendo en cuenta esto el proyecto contribuye con este objetivo empresarial. Su fácil implementación, bajos costos de inversión y resultados visibles a mediano plazo hacen que el proyecto genere interés en la alta dirección de la compañía esto facilita la implementación, el mantenimiento y el mejoramiento del mismo.
14	FUENTES BIBLIOGRÁFICAS	• http://www.12manage.com/methods_CPFR_es.html • http://www.SCOR.com • Relaciones colaborativa como estrategia de negocio CPFR, IACO

Vo Bo Asesor y Coordinador de Investigación:

CRISANTO QUIROGA OTÁLORA