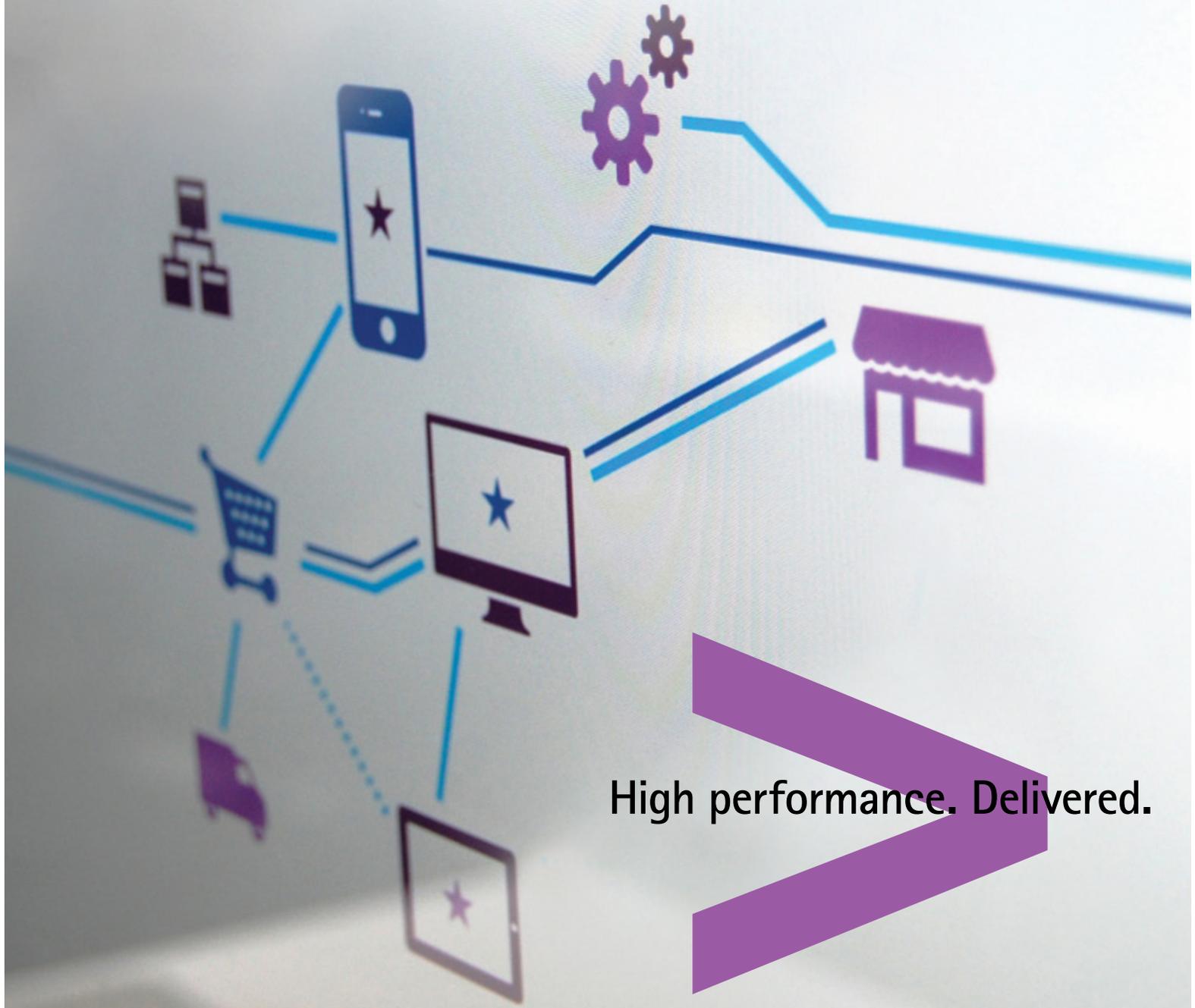


Seamless Inventory Management: Seizing the Opportunities with Cross-Channel Inventory Management



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The surge in online, mobile, and other new selling formats in recent years demonstrates that consumers respond favorably to a truly flexible shopping experience.

Consumers have more tools than ever at their disposal and are using those tools to drive a multi-channel shopping experience on their own terms. This is a boon for many retailers, but quickly turns to a bust when the cross-channel shopping experience is anything but seamless. Today's non-stop customer demands a unified, seamless experience when interacting with a retailer, regardless of channel.

In fact, Accenture's survey of 6,000 consumers in eight countries reveals that the majority of respondents believe that integrating in-store, online and mobile is the number one thing that retailers can do to improve the shopping experience.¹

To attract these customers and succeed in a complex, fast moving and hyper-competitive environment, retailers must change their game to remain relevant. They must become seamless retailers (see Toward seamless retail overleaf).²

Although most retailers today offer and sell products through multiple channels, very few can say that they are executing a truly seamless operation. According to a recent study, only 10% of retailers have achieved the desired integration across their store and fulfillment operations to realize the potential opportunities.³ Close to three in ten online retailers say they either have no current plans to deliver a seamless cross-channel experience (22%) or will always keep their sales channels separate or siloed (6%).⁴ Yet more than 85% of retailers say direct-to-consumer fulfillment will command a greater level of their attention in the future, as they aim to create a seamless customer experience regardless of channel.⁵

As part of Accenture's Seamless Retailing series, this point of view addresses a foundational element of seamless operations: cross-channel inventory management. For retailers seeking to create a seamless customer experience, the underlying issue of managing inventory across channels is a huge barrier. Traditional complications of merchandising, assortment, and inventory management become even more daunting in a seamless world. Consumers want and expect a consistent experience across channels. Typical challenges of forecasting, profit optimization, and in-stock become even more difficult with competing demands across channels and increased customer expectations. Effective cross-channel inventory management is essential to reconciling the competing demand, satisfying customers, and becoming a truly seamless retailer.



Customers have more tools than ever to learn about products, **compare prices** and **gather insights**



One North American retailer was forced to **cancel** online customer orders late in the holiday season due to **overwhelming demand for certain goods.**

The implications of poor cross-channel inventory management—ranging from reductions in revenue and profits to the loss of customer loyalty that online and mobile commerce have impacted—can be serious. One North American retailer was forced to cancel online customer orders late in the holiday season due to overwhelming demand for certain goods. The company had the needed inventory in its network but couldn't get to it due to lack of visibility across channels. This fiasco not only tarnished the company's image but also prompted a strategic decision to be more conservative and carry more inventory at both stores and warehouses. If the retailer's multi-channel infrastructure had been geared to provide cross-channel inventory visibility, this shift in inventory strategy could have been avoided or minimized.

Although the concept of the seamless organization may appear simple in theory, there is nothing simple about the planning and execution necessary to make it a reality. Getting cross-channel visibility, product allocation, and order management and fulfillment right in a seamless environment requires significant change not just from an infrastructure and business-process standpoint but also from an organizational one. Today, most multi-channel retailers have dedicated inventory for each channel—often as a result of having set up separate e-commerce entities when they first ventured into online commerce—while the ideal for many retailers is to have a single inventory across all channels. In most organizations, there are many obstacles preventing such integration.

Yet even though the task of integrating across channels is complex, retailers do not have to drastically change out all of their existing processes and systems and start again from scratch. Rather than trying to accomplish everything at once, we recommend a framework that balances support for ongoing business with enabling new seamless capabilities.

Toward seamless retail

Delivering a consistently personalized, on-brand experience for every customer—every time, across every channel is the holy grail of seamless retailing. It's essential for retailers to remain relevant, build loyalty and boost sales in a turn-on-a-dime market.

Seamlessness requires a new breed of customer experience, operations, platforms and partnerships. Retailers must evolve to:



Customize

Understand individual shoppers in context and across channels



Connect

Integrate operations to sustain a single customer conversation



Converge

Build standardized IT platforms that unify divergent data sources



Collaborate

Forge partnerships to strengthen the customer value proposition

Seamless inventory framework

We believe that a truly seamless approach to inventory management—one that provides visibility, flexibility, and responsiveness throughout the supply chain—is based on a foundational framework. A framework based on four building blocks—governance, decision support, seamless execution, and monitoring/continuous improvement—each of which entails a particular set of capabilities.

The framework is made up from four key areas:

1 Governance

 [Read more on page 6](#)

To become a successful seamless organization, a company must agree upon and establish channel-neutral policies that help drive cross-channel decision making.

Such policies allow organizations to adapt quickly to the seamless inventory framework by enabling decisions to be made without necessarily having to overhaul an organizational structure with channel-specific functions. Governance for seamless organizations enables cross-channel decision making and sets inventory policies.

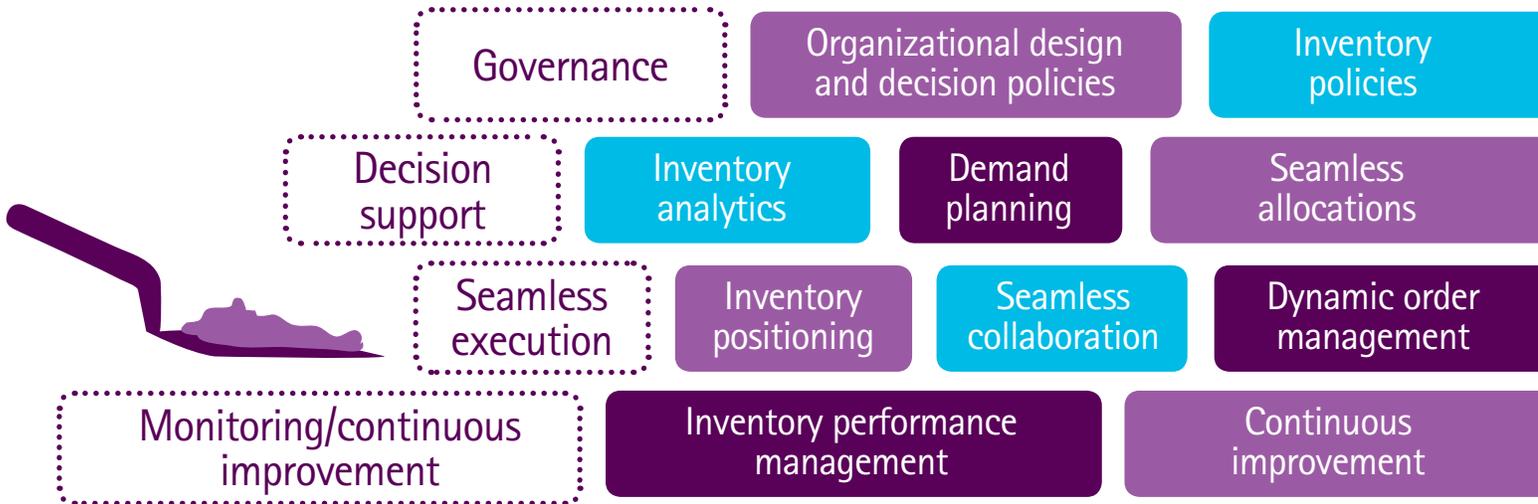
2 Decision Support

 [Read more on page 8](#)

A strong decision support system is essential for enabling informed and confident business and organizational decision making.

An effective decision support mechanism: 1) identifies all the data required for a decision and organizes it as usable information; 2) aids good enterprise-wide decisions by laying out the effects of all the alternatives.

Figure 1: Seamless Inventory Framework



3 Seamless Execution

📖 Read more on page 11

In the seamless world, being nimble is key to successful operational execution. Seamless execution means having the versatility for optimal allocation of orders, positioning of inventory, and shipping across channels.

This helps companies, for example, to maintain inventory at levels that will simultaneously reduce carrying costs, increase service levels, and improve inventory performance.

In each of these four areas of governance, decision support, seamless execution, and monitoring/continuous improvement, companies must have particular capabilities to build a successful cross-channel inventory management system. (See Figure 1)

We now consider the needed capabilities in each of these areas.

4 Monitoring/Continuous Improvement

📖 Read more on page 12

The ability to monitor and gain better insight into inventory positioning is critical to the success of any multi-channel program.

In cross-channel inventory management, as in all business processes, a company needs to have adequate controls to ensure that objectives are being met and improvement programs are in place where needed.

1 Governance

Organizational Design and Decision Policies

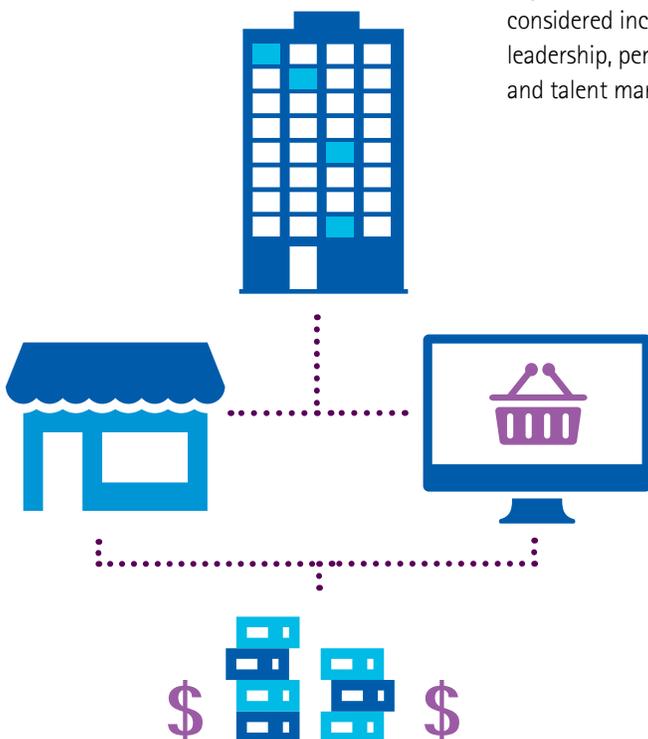
When it comes to governance for the seamless organization, achieving the necessary capabilities is all about establishing the right policies. The first policy area to be considered involves decision making itself.

Many organizations that choose to embark on the seamless journey fail to foresee the significant organizational impacts.

In fact, consolidating inventory has many implications similar to those of a merger or acquisition. Although, in the former instance, different business units (i.e., channels) are likely operating under the same company name, each probably has its own organizational structure, processes, and technologies to drive its business.

To be successful in integrating inventory, you must first align your organization so as to enable all channels to function in a seamless and integrated fashion. For example, prior to cross-channel inventory integration, each channel may have its own planning organization, each with its own incentives. Once the decision is made to share inventory, the organization must be structured so that the channels operate as a single business unit with a single set of financial objectives. Besides financial incentives, other organizational elements that may need to be considered include: change impacts, culture, leadership, performance management, and talent management.

Having the right organizational design is not enough, however, to achieve cross-channel inventory integration. It is also essential to obtain agreement on decision-making policies and procedures. This is especially critical when there is not one clear owner of inventory across all channels. For example, if a product is sold across different channels and managed by different individuals, who ultimately owns the vendor agreements, P&L, and decisions when there are constraints? In an ideal state, there would be only one owner of inventory across all channels, but the reality is that most companies are not structured in this way. Setting policies upfront for making these types of decisions enables companies to adapt quickly to ever-changing customer needs. Such policies can be established relatively easily, with minimal disruption to the current organizational state of affairs.



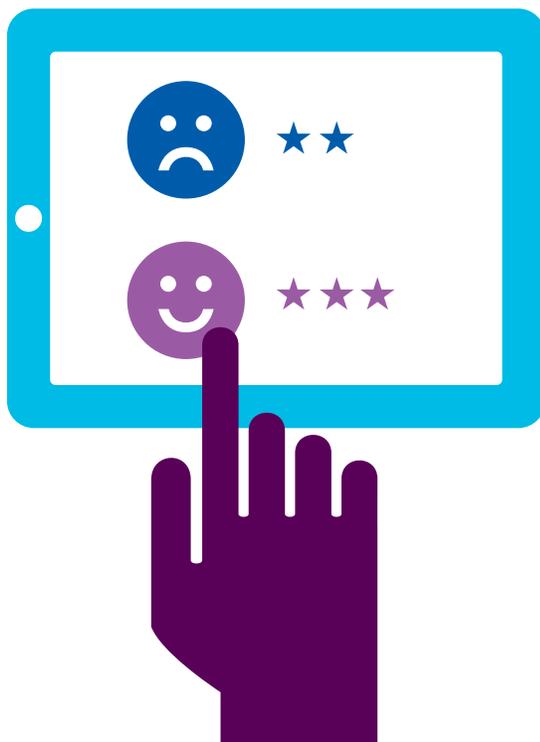
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Inventory Policies

The success of any seamless organization rests on a sound foundation of policies that govern and manage inventory across channels along the supply chain.

As organizations “stand up” or integrate new channels, inventory policies become vitally important but also exponentially complex. In a single-channel organization, questions such as “What products should I carry?”, “How do I manage supply constraints such as shortages?”, “Who assumes the financial liability in cases of excess product?”, or “What rules and/or fulfillment modes should I use to meet my demand?” are relatively easy to answer. From the moment inventory is shared across multiple channels, however, a company needs policies that support financial goals across all channels without “penalizing” one or more of them. For example, policies about responding to shortages need to dictate how products will be allocated when such instances arise, while taking into account overall corporate profitability and service-level agreements.

Enterprise inventory policies, which should be decided and agreed to upfront, also allow organizations to work more collaboratively with vendors and enable distribution and logistics to operate more efficiently. In an era when customers can publicly rate their shopping experiences with a click of a button, such policies need to be robust and dynamic enough to support all demand types. It is also important that, as customer patterns change, organizations have processes established to review their inventory policies on an ongoing basis and adapt them as needed.



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2 Decision support

Inventory Analytics

Organizations of all kinds are moving towards information systems that derive actionable insights from quantitative data that can be used to improve outcomes.

The collection and storage of data is now understood to be only a means to the end of being able to model and predict behavior to aid in decision making. In a seamless environment, modeling and predicting become more complex and require robust cross-channel inventory analytics.

Yesterday's inventory management occurred in siloed environments where inventory decisions at the store level were invisible to stakeholders upstream in the supply chain, and past performance was used to predict future sales. This was less than optimal even in a single-channel organization, and for a seamless retailer such systems are inadequate.

Today's more advanced cross-channel analytics solutions not only leverage past performance to predict future demand but also break down barriers across channels, incorporating the consumer to better manage product allocations by channel as well as by region.

Intelligent cross-channel inventory management analytics can weigh stock reduction versus customer service in any given set of circumstances and predict the best balance for success. Many retailers are moving to cloud-based software-as-a-service (SaaS) applications for cross-channel business intelligence analysis and evaluation of business metrics. SaaS and cloud-based solutions can be implemented across all departments, including purchasing, distribution, and point-of-sale, and can be accessed from any location, computer, or mobile device.

SaaS solutions allow data to be accessed from any location, computer, or mobile device.



Demand Planning

The challenge of synchronizing demand signals with efficient supply chain operations is as old as retailing itself, and demand planning is an essential decision support mechanism in any retail organization.

In a perfect world, a consumer's desire for a product would be anticipated and fulfilled through a seamless, efficient supply chain and every consumer intention to buy a product would result in a sale. In the real world, consumers often find products out-of-stock and less desirable items languishing on store shelves. The primary challenge is connecting all the components of demand and supply planning and fulfillment operations, so that product availability is reliable, time-to-shelf is fast, and manufacturing and distribution costs are minimized.

Demand planning in the seamless world is especially complex. The complexity is driven by the need to capture and analyze dynamic demand signals across multiple channels, supply networks, and fulfillment locations. Demand planning complexity increases exponentially in proportion to the number of channels.

To complicate matters even further, channels traditionally have different sales patterns, run different promotions, and may have unique pricing. In a seamless world, demand planners need to have a strong understanding of not only product characteristics but also channel behaviors. Organizations that have demand planners segregated by channel need to establish new processes to foster communication across channels, while organizations that have a centralized planning team (one planner across all channels) need to ensure that the planner has a good understanding of demand patterns in each individual channel to meet overall demand.



In the real world, consumers often find products **out-of-stock** and less desirable items languishing on store shelves.

2 Decision support continued...

Seamless Allocations

For companies trying to become truly seamless, allocating products across channels poses unprecedented challenges.

Organizations need to establish new inventory-allocation business rules to protect inventory by channel in the event of shortages (which can be the result of vendor shortages, under-forecasting, etc.) and these rules must be flexible so as to support each channel's unique needs. To take a common, real-life scenario that illustrates the necessity of such rules, consider the following:

Should stores be shorted (i.e., penalized) in the event that the e-commerce channel (or any other channel) has significantly under-forecasted demand—even if the stores' needs have been accurately forecasted? It is situations such as these that require organizations to determine and implement seamless allocation business rules.



The following questions should be asked to ensure efficient seamless allocation rules are in place:

In what cases can inventory be protected? E.g., promotions, new store, initial allocations for short lifecycle/seasonal products, large accounts?

For how long can/should inventory be protected?

Do we make different decisions based on where the scarcity is – e.g., at the vendor or in the distribution center (DC)?

Should we fill orders only up to the e-commerce channel's 'protected inventory' quantity or up to the total inventory available in the DC?

What policies guide when one channel can take inventory from another?

3

Seamless execution

Inventory Positioning

An optimal channel for inventory can be determined through cross-channel analytics, but an enterprise needs the ability to position inventory as required by analytics—for example, by moving products from the store-replenishment zone within a DC to the e-commerce zone within the same DC.

A more complicated scenario might involve shipment of over-allocated products from a store back to a DC to ensure accurate inventory positioning.

Seamless Collaboration

Collaboration between channels is key to the implementation of seamless capabilities. Innovative distribution concepts based on seamless collaboration result in higher service levels and customer satisfaction by leveraging assets across multiple channels.

For example, online orders can be routed to nearby stores instead of a DC and the stores, in turn, can deliver product to end customers. This results in shortened delivery time, distribution-cost savings, and increased customer satisfaction.

Dynamic Order Management

Leveraging cross-channel shipping capabilities requires the ability to route orders to the optimal fulfillment point.

Dynamic order management reviews inventory constraints and routes orders so as to minimize cost while achieving service targets. The benefits of dynamic order management in a seamless environment include:

- reducing time to market by using a single design environment that serves all stakeholders and provides preconfigured, service provider-specific best practices;
- improving order-fulfillment accuracy with a single, centralized product and services catalog;
- reducing mishandled orders by routing orders through a seamless systems landscape and sophisticated automated error-handling mechanisms;
- streamlining the order-to-cash cycle through a timely billing system with notification of order fulfillment.

Distribution Centers are bypassed resulting in shortened delivery time, distribution-cost savings, and **increased customer satisfaction.**



4 Monitoring/continuous improvement

Inventory Performance Management

Effective inventory sharing requires clear metrics, measurement, and action plans tied to the relevant policies.



Continuous Improvement

Organizations implement seamless solutions not only to drive savings but also to improve the experience of customers whose desires and expectations are constantly changing.

Traditionally, retailers have used Key Performance Indicators (KPIs) such as in-stock and lost sales independently within each channel. Those KPIs are used to support channel-specific decisions regarding inventory positioning and to drive desired behaviors within each channel. Rarely, however, are the KPIs viewed consistently across all channels. Transitioning to a seamless, shared-inventory model requires a paradigm shift in how these metrics are viewed, calculated, and acted upon.

Companies need to replace or augment channel-specific KPI calculations with common, consistent measures that tie back to corporate profitability. Ensuring that common KPIs are measured in a consistent manner across all channels removes subjectivity, increases standardization, and provides a corporate-wide view that can be interpreted the same way by all members of the organization.

Questions such as "What mechanisms are in place to monitor supply chain effectiveness?", "Am I holding the right amount of inventory?", or "How are my customer base and its demands changing?" must be addressed by any retailer, regardless of how many channels it operates.

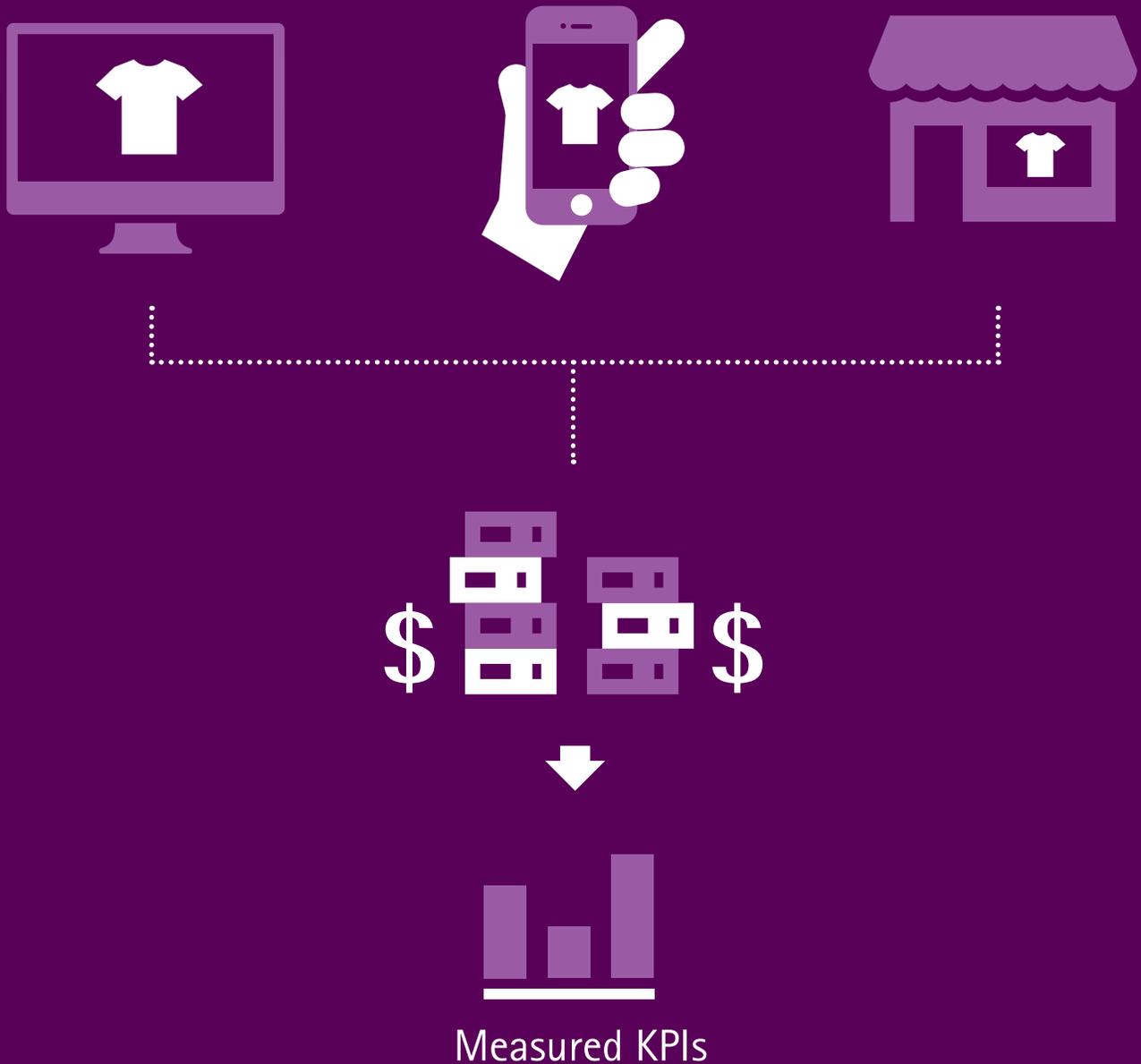
What makes continuous improvement both especially critical and significantly more complex in a seamless environment is that decisions with a favorable impact on one channel can often have a negative impact on another: for example, a retailer might implement a sales strategy that benefits its e-commerce channel but cannibalizes inventory at stores.

Once channel-neutral KPIs have been established, the next step is to ensure ownership and accountability. For example, forecast accuracy, a common KPI, puts the onus on the demand planner to ensure that the product is being managed correctly. If the forecast accuracy rate is low, the demand planner is responsible for investigating and identifying the root cause of the problem.

What becomes increasingly important, and complex, when operating in a seamless environment, is ensuring that such responses are channel-inclusive rather than channel-independent. In the seamless world, in other words, the planner must look across all channels to find the root cause of inaccurate forecasting. Likewise, corrective actions may span multiple channels and therefore require cross-channel cooperation. By having metrics defined and calculated in a consistent manner, organizations can make decisions that improve performance not just in one specific channel but corporate-wide.

Having the right data, metrics, and people to quickly identify and respond to such issues is crucial for retaining your customer base. Continuous improvement, however, is not about reacting and adjusting. It is about being able to monitor, make predictions about, and enhance all areas of your operations so as to ensure customer satisfaction while also keeping your organization profitable.

Transitioning to a **seamless, shared-inventory model** requires a paradigm shift in how metrics are viewed, calculated, and acted upon.



Getting started

While achieving completely integrated solutions for cross-channel inventory sharing is a multi-year journey, it is one that can be approached incrementally. For most retailers, the gaps between today's capabilities and those of a truly cross-channel operation are quite significant. To mitigate the risks associated with any large-scale multi-channel transformation, we recommend following a four-stage roadmap as follows (see Figure 2):

1 Establish a governance model

Across all levels of the corporation a governance model should be put into place to provide overall direction on the implications of cross-channel integration (e.g., organizational model, KPIs, financial incentives) and establish policies. A sample governance model might include a steering committee and an executive sponsorship group.

The steering committee would consist of leadership from finance, merchandising, planning, and distribution as well as senior representation from IT. This group would be accountable for establishing the framework for cross-channel integration summarized in Figure 1 and making key decisions such as whether to have an integrated demand-planning group or channel-specific ones. The executive sponsorship group would be comprised of executive leadership that signs off on the decisions made by the steering committee.

2 Standardize processes that have cross-channel implications

As companies move towards a shared-inventory model, standardizing all processes that have cross-channel implications becomes a critical enabler of success. Just as many manufacturing and packaging organizations have sales and operations planning processes to foster communication and create constrained supply plans, seamless organizations need to establish processes that enable cross-channel functions to operate efficiently while also minimizing risk to the organization.

For example, if a company creates sales plans that are channel-specific, processes should be established for consolidating information into a single sales plan; the net result could include better vendor negotiations via economies of scale. During this stage of the roadmap, IT should also be putting into place technologies required to support and enable processes that most likely will be largely manual at the beginning.

Start your integrated journey here

3 Pilot the IT and business solutions on a low-risk merchandising category

Once the technologies are in place to enable a shared-inventory policy, we recommend first piloting this model on a low-risk merchandising category for a predetermined amount of time.

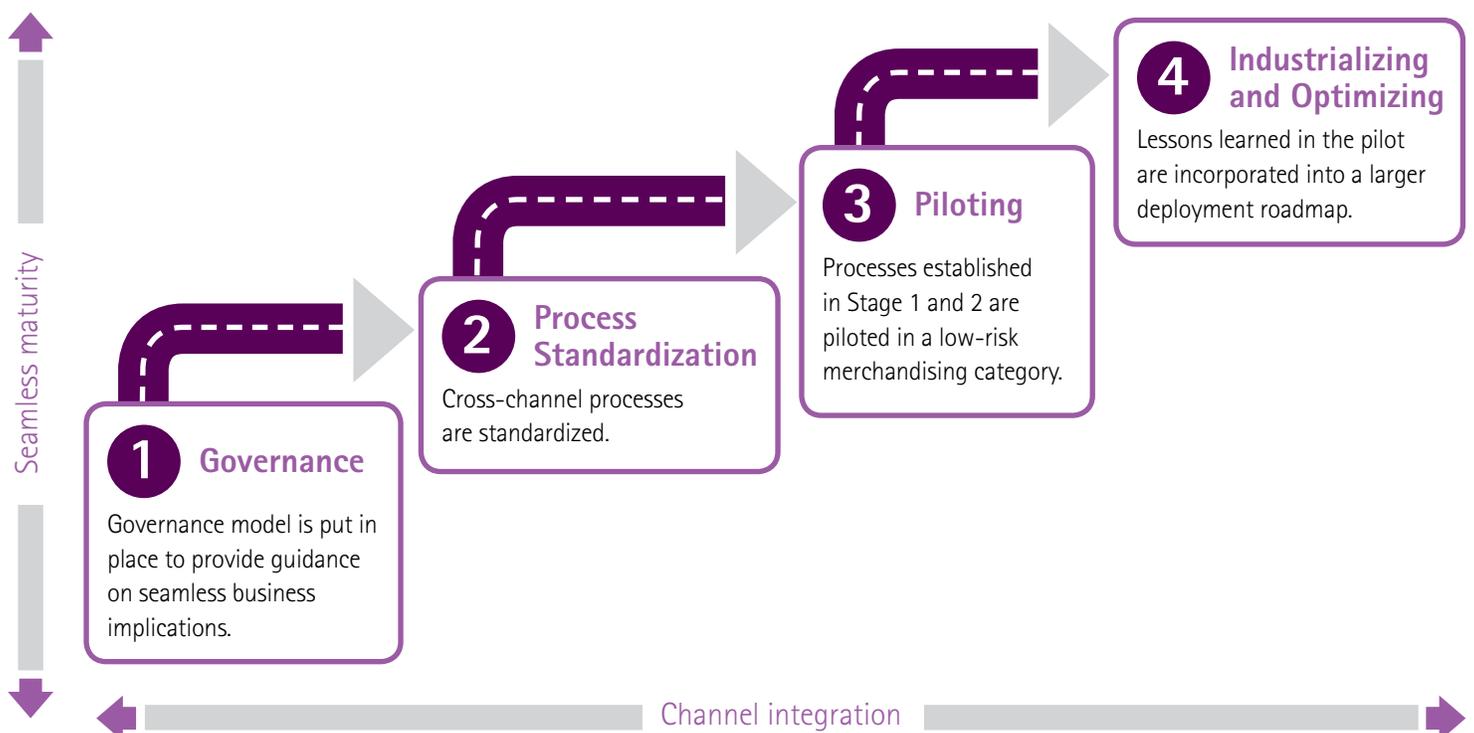
Conducting pilots before industrializing cross-channel solutions defers large-scale IT investment until the requirements are more thoroughly understood. This approach decreases the likelihood that rework will be necessary, lowers investment costs, and improves ROI. Lessons learned in this stage can then be used to establish a deployment roadmap that takes into consideration additional business needs and any corporate mandates established by the executive sponsors.

4 Industrialize and optimize

Armed with the lessons learned during Stage 3, companies should be ready to deploy their new seamless capabilities and offerings. As these are rolled out, solutions developed in the pilot stage must be strengthened and industrialized to scale across the enterprise. Likewise, pilot solutions must be updated and enhanced to support the unique, nuanced needs of each merchandising category.

For example, decision logic for how grocery items are shared and moved within the DC may differ significantly from that for slow-moving items that have long shelf lives and/or lead times. Before entering Stage 4, it is absolutely essential that companies move quickly but thoughtfully through Stages 1–3, to ensure that cross-channel solutions will support the organization's value proposition and business model.

Figure 2: Implementation Roadmap

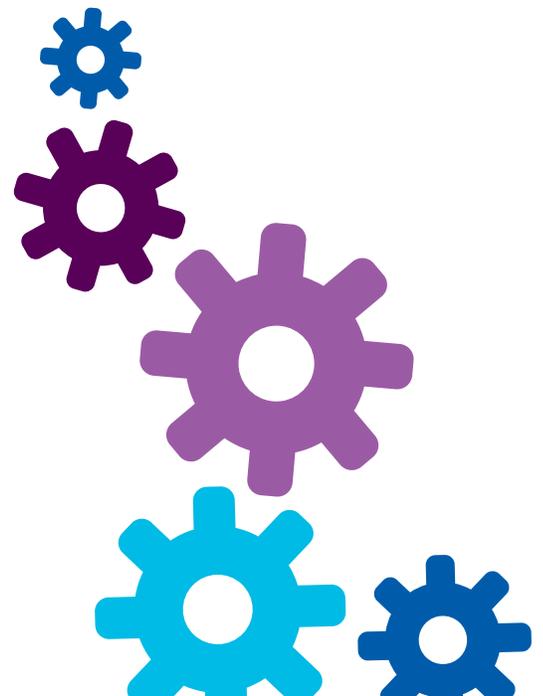


Conclusion

For most enterprises today, the notion of seamless operations is still just an aspiration. The seamless journey is a significant undertaking that requires years of investment. The degree of effort and, frankly, risk involved has kept many companies from getting started.

Yet all indications are that consumers will reward those retailers who offer a consistent cross-channel experience. Given the complexity of the required transformation, embarking on the seamless journey certainly does seem daunting. However, the framework provides the structure necessary for directing the journey, outlining the activities companies must undertake in order to rapidly seize the many valuable opportunities available in a seamless world.

Moreover, because factors such as customer tastes and demands, channels, and channel technology are, and will remain, subject to constant change, it is essential to be nimble when executing the multi-channel transformation. Utilizing an incremental approach to implementation, one that validates concepts prior to full-scale deployment, allows companies to respond to ongoing change while protecting against over-investment in unproven ideas. Implementing the seamless inventory framework in such a stage-by-stage manner is the best way to get the journey started and begin reaping the benefits.



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