

Order, Inventory & Warehouse Mgmt.

Overview:

The project dealt with developing a cloud-based software product for retailers. The primary aim was to offer them a cost-effective system to manage their operations efficiently at lower costs and in a comprehensive manner. Retailers using this platform get over the hassles of having to deal with multiple software applications to handle the complex activities of sales, inventory and order fulfillment. Infact, with the flexibility that is offered to them, retailers can focus their energies and time more on building their core capabilities and not get caught up in otherwise managing a multitude of activities lacking synergy and draining them of resources and time. They become better positioned to meet the demands of a fast-growing omnichannel customer base. The product is very easy to configure and can be scaled up depending upon the need of its users. Being cloud based makes it highly cost effective too.

Technologies:

Tech Tags: PHP, MySQL, jQuery, Ajax, Bootstrap, Sphinx, SOAP & REST APIs

ECommerce Platforms: Big Commerce, Magento, Shopify, and Zoey

Market Places: Amazon, eBay, Walmart

Payment Gateways: Authorize.net, PayPal, Braintree

Shipping: Endicia, FedEx, Pitney Bowes, UPS, and more ship station

Version Control: GIT

About the Client:

Client Name: Confidential | **Industry:** Retail | **Location:** USA

Description:

The product aims at solving the most critical subject that would be at the top of the mind of any retailer i.e. to efficient management of retail orders, inventory and fulfillment, while minimizing the possibilities of errors in the process. It is not uncommon to find retailers using multiple software solutions to handle each of these activities and then facing issues building synergies between them; notwithstanding the losses that have to be borne as a result of the errors.

Order, Inventory & Warehouse Mgmt.

With this software product all sales channels get synced up, both online and in-store, and fulfillment operations get thoroughly optimized. A dashboard showcasing the status of the ordering, inventory and shipping operations, in real time, gives the retailers a thorough grip on their businesses. It truly liberates them to focus their energies on growing their businesses and not worrying too much about running them at the size they are in. In a highly competitive, connected and evolving retail environment, this platform is an ideal tool to be used to offer customers a completely personalized, omnichannel shopping experience and enable the retailers to build long-term engaging relationships with them.

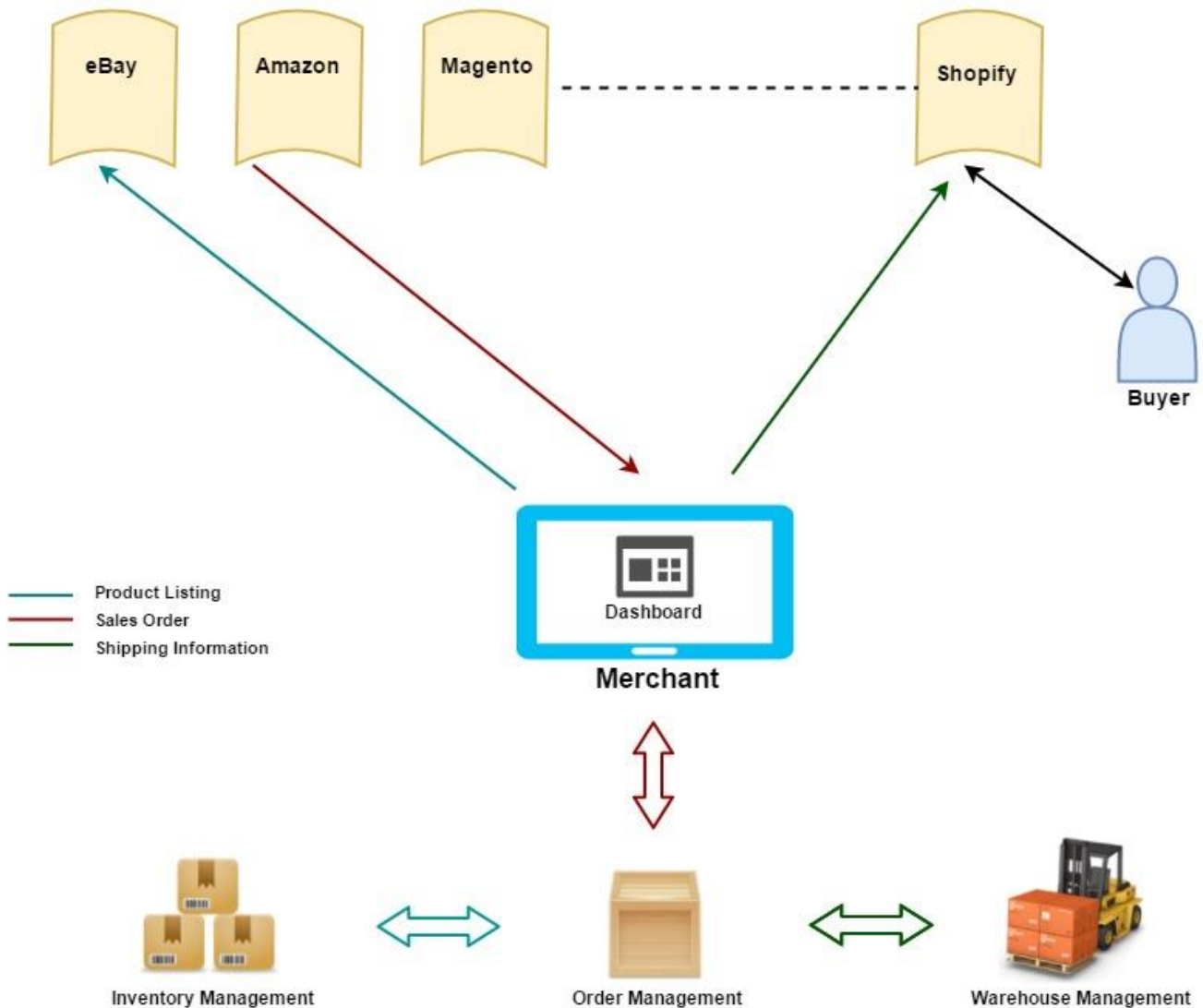
This product can serve the needs of retailers of all sizes and types – be it eCommerce-only with a need for advanced order management or an enterprise one needing a full omnichannel solution. The flexibility and scalability offered is exceptional. The standout features include

- Robust and Easy to Use
- Highly Configurable
- Faster Time-to-Market
- Lower Cost of Ownership
- Unlimited Scalability

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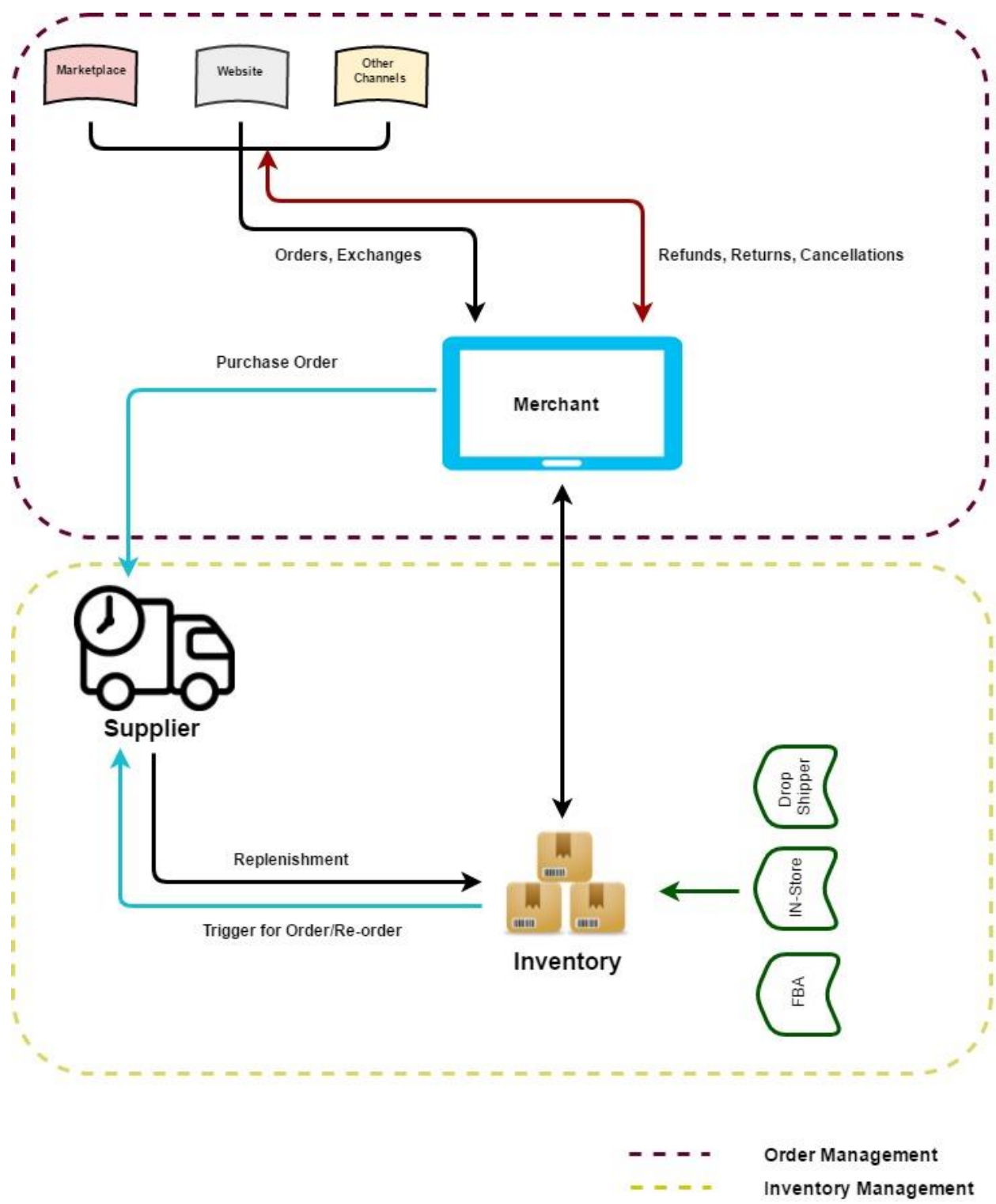
Workflow Diagram:

The various functions which can be performed using this software product fall under 3 overarching heads: Order Management, Inventory Management, and Warehouse Management. A unified approach towards handling all the three from a single platform reduces chances of errors, and enables productive synchronization of activities.



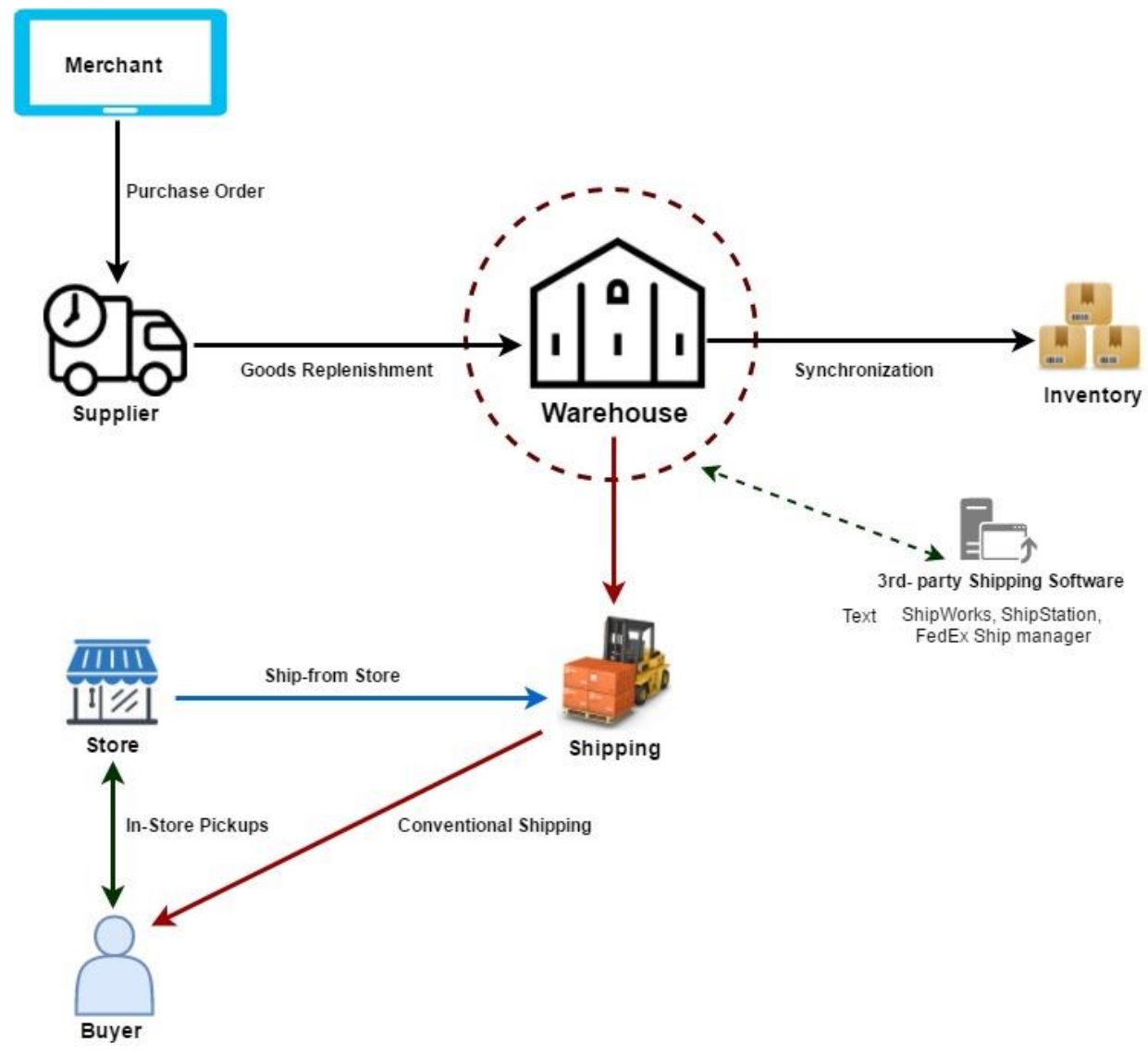
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Order & Inventory Management



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Warehouse Management



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Components

1. Merchandising

Multi-Channel Product Listing:

The solution directly integrates eCommerce platforms with marketplaces effortlessly; using product listing templates to map data to various formats required by platforms such as Amazon, eBay, Magento, and BigCommerce. Thus, retailers can execute bulk product listings and expand product lines with utmost ease, eliminating manual work and related costly errors.

Product Management:

Using a suite of powerful yet user friendly tools, retailers can create categories and sub-categories for their products. For their entire catalogue, they can import, update and push product data into various platforms from a single source, taking into account inventory levels, pricing, industry-type and other relevant factors as deemed necessary. Besides that, they also have the provision to push automatic pricing updates, specific to store and product category, based on need. Overall, the solution offers retailers ultimate flexibility in managing multi-channel ordering and real-time inventory management.

2. Orders/Fulfillment

Order Management:

The solution enables retailers to consolidate orders from all their online sales channels, websites and marketplaces, besides offering steps for fraud check, cancellation, returns, and exchanges. The routing rules are automated and have provision to even handle routing to multiple store locations with In-Store fulfillment. Retailers can either integrate with their own shipping accounts or seamlessly connect with 3rd party shipping software like ShipWorks, ShipStation, or Pitney Bowes/Enroute. All other functions like order changes, cancellations, refunds, returns, and exchanges can be handled directly and quite conveniently using the system.

Order, Inventory & Warehouse Mgmt.

Inventory Management:

The system allows retailers to perform multi-channel, real-time inventory management, allowing them to handle high order volumes using very few resources. At any given point, they have real-time inventory visibility across all sales channels (including the store locations), warehouses, suppliers, drop shippers, even FBA. Using the system, a complete synchronization of inventory is achieved across multiple sales channels. Reorder thresholds can be set so as to trigger purchase orders automatically. The inventories get managed for returns, exchanges, and cancelled orders as well.

In-Store Fulfillment:

Buyers nowadays seek an omnichannel experience i.e. the option to buy online and pick up in-store, or have the product delivered. This feature in the software product allows retailers to meet that demand by breaking down inventory silos and selling from a single pool of inventory spread across stores, warehouses, and drop shippers. Order routing logic gets determined based on geo-location, store priority, store scheduler, lowest cost, fastest shipping and inventory availability. There is provision to split and ship partial orders too. Customers are notified about the status of their orders and are rendered a unified brand experience.

Supplier Management:

Communication between retailers and their suppliers gets streamlined through a single, unified platform that records, manages, and receives all purchase orders. Provision for 24x7 real time view of complete inventory results in avoidance of out-of-stock situations. Re-order thresholds can be set for individual products to automatically trigger POs to suppliers. Software auto-updates inventory upon receipt of POs, thus making inventory replenishment a highly simplified affair. Items can be received one at a time with a barcode scanner or in bulk.

Shipping Management:

The software product connects with the best-of-breed shipping solutions and major carriers like ShipWorks, ShipStation or Pitney Bowes/Enroute. Automatic shipment updates are made available in the system after orders get shipped. The tracking numbers can be pushed into the ecommerce platforms that are getting interfaced. Retailers using this product experience increased shipping capacity and shortened delivery times and improve the overall retail shopping experience for their customers.

Order, Inventory & Warehouse Mgmt.

Warehouse Management:

The product has features to streamline inventory and order fulfillment from product locations - to pick, pack, and ship. Using a single user-friendly dashboard, retailers thus manage multiple warehouses and product locations conveniently. The product integrates seamlessly with internal shipping accounts as well as third-party shipping software to send orders. There is provision to integrate with barcode scanners. Orders can be batched according to zone, aisle, ship method, or order value.

3. Distributed Order Management

There is tough competition in the retail marketplace as far as fulfillment options are concerned for e.g. ship-from store, in-store pickup, and speedy delivery. Multi-channel environment is a reality and for retailers to survive, staying nimble and constantly adapting to these evolving methods is a must. This is where having a distributed order management system, as offered by this product, offers the backbone to its users to execute their strategies to perfection. The following approaches are all dependent upon having the right distributed order management system.

Omnichannel:

It is a fact that customers today ask for a channel agnostic, seamless experience. In turn the retailers are required to develop internal capabilities so as to manage orders, inventory and fulfillment operations efficiently. To give this the perfect execution, retailers are required to have the right strategy in place and a capable technological partner to execute the plan to perfection; thus offering the clients a unified experience across all channels.

Endless Aisle:

The concept allows retailers to offer its customers stocks/products beyond those available in tangible form in a store. It requires them to forge partnerships with other retailers/whole sellers/manufacturers and in turn offer its clients the entire collective inventory that becomes available – some in physical form and the rest virtually. In-shop kiosks or other intuitive arrangements are made available for customers to access products virtually and later get delivered to them, if purchased. Retailers thus can make good use of their floor space and reduce chances of stock-out. Customers, on the other hand, can find and order the product they want to shop – instore or online.

Order, Inventory & Warehouse Mgmt.

Ship-from Store:

This makes it possible for retailers to fulfill online orders from the stores nearby and not necessarily from warehouses or distribution centers far away. At the heart of executing this strategy lies the ability to have complete inventory visibility and fulfillment capabilities of stores i.e. the right approach to pick, pack and ship.

In-Store Pickups:

This strategy prompts a customer to place an order online and pick it up at a nearby store. Besides offering them convenience, choice and saving time, it also allows them to avoid paying any shipping charges. For the retail store owners, it offers an opportunity to expand the customer experience and potentially the size of the order too.

Application

The comprehensive product was successfully developed by the team at Mindfire Solutions. The client in turn serves its customers by customizing the product to suit their exact needs. All such customization or related work is performed by the team@Mindfire. We have covered a couple of such instances below.

Implementation Instance1:

A retailer wanting to sell online can use this product to interface with multiple ecommerce marketplaces in parallel and manage operations efficiently and with minimalistic chances of errors. This work of customization required development of a seller dashboard for managing administrative operations effectively for multiple e-commerce sites. Order management flow was implemented so as to automate activities ranging from receiving orders to shipping pickup. Supply chain logistics flow was implemented to handle in-bound and out-bound products, inventory management, product synchronization and publishing. Besides having features to import data and create dynamic attribution mapping, required capabilities were also developed for integrating with shipping software and payment APIs. A cron was implemented for scheduling / rescheduling tasks, depending upon the priorities assigned. Reporting capabilities were also made available to offer reports and charts, for analytics, on sales, inventory and customers.

Implementation Instance2:

This customer wanted a back-end order processing application that is integrated to APIs of all leading online marketing places including Amazon, EBay, Magento and ColdFusion stores. An easy-to-use interface was developed to enable the merchant to manage all his products, orders and customer-data efficiently while successfully synchronizing inventory, order management and supplier management data. The application helped the customer to get accurate cross-channel

Order, Inventory & Warehouse Mgmt.

product information and publish more products to those channels which are identified as selling more. Payment and shipping gateways were integrated to help the customer to manage sales, orders and shipping in a single place. Besides all this, all selling information is made available to merchants using graphs and widgets.