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6 Commerce Search Secrets You Need to Know

HCL Commerce Cloud

Executive Summary

It's not new news that search plays an integral role in your commerce experience. With so many options in the market, it's easy to overlook the most obvious one that's already integrated with your platform and may offer the same level of sophistication and capability but with greater control and potential cost savings. The opportunity cost of outsourcing such a critical part of your solution may be higher than you think, especially when you consider the level of business process integration and workflow to harmonize internal operations between platforms. Before you make that leap, you may want to consider a few important factors.

The impact of Search goes beyond navigation and across the whole customer experience, influencing the shopping cart, catalog, promotions, merchandising, marketing, orders, click and collect and more.

With so much at stake, by focusing on the 6 secrets below you can improve the search experience and achieve three major benefits:

1. **Grow sales –** faster search and enhanced performance equals more conversions.
2. **Increase customer loyalty –** highly relevant search results for a frictionless experience.
3. **Create unique experiences –** make your brand stand out from the competition.

Most 3rd party search platforms are comparable in terms of feature/function to meet the basic requirements of your site and customer experience. However, because search is so vital to your digital business, time spent on integrating and maintaining a 3rd party solution is time taken away from improving search and the end-to-end customer journey.

Here are the 6 secrets you need to know about search:

1. Speed Matters but Not at the Cost of Accuracy
2. Special Customers deserve Special Pricing
3. Manual steps are points of failure
4. Take control of your search!
5. Don't touch this (data)!
6. Show me the money (and savings)! - TCO & Pricing Model

1 Speed Matters but Not at the Cost of Accuracy – Product, Price, & Inventory

The bar is constantly rising for what is considered an exceptional on-line customer buying experience, but the basics still apply, the information being presented to the customer must be reliable and accurate at the time of purchase. The reality, however, is that product information, inventory levels and other relevant information presented to the customer is constantly changing and can get out of sync with reality. The most frustrating experience is when a user encounters error messages while navigating through the checkout funnel because of stale content that was caught just before order submission. What's worse is if the order was successfully processed and immediately followed by "We're sorry, but your order cannot be completed..." e-mail once reality kicks in and downstream systems start to trigger alerts.

Is your platform optimized for performance while also ensuring that the information on your site is always current and accurate?

I know what you're thinking – how is any of this connected to search? Great question! Search is no longer relegated to just executing queries and presenting the ensuing result set. It's an integral part of site navigation and merchandising. The search index has the potential to drive category listing pages (CLP's), product listing pages (PLP's), recommendations, and much more. When a business user initiates a change that triggers a search index rebuild, that can affect a host of other content and pages. So what? Don't they get updated automatically? Well…kinda.

"It's all about the cache, baby!"

There may be several reasons for content disparity once a business user or system initiates a change that has ostensibly been pushed to production and should be "active". One blatant and shameless culprit is cache… and specifically timing and coordination of when stale content is recycled or refreshed. Navigation, category, and product related pages are often cached to boost performance on multiple levels (e.g. browser, application, edge network) depending on your environment. Synchronization across these systems and layers is not always automatic and often requires orchestration and/or time-based triggers that requires IT intervention.

So what does all this mean for the Business? It allows Business users to make changes in near real time without IT intervention or having to worry about orchestrating processes to make sure the information is accurate on the website. Best of all, these changes can be introduced throughout the day without impacting site performance even during peak periods!

HCL Commerce Cloud search offers a few distinct advantages with this process:

- A search index rebuild or refresh automatically triggers invalidation rules (i.e. when and how to replace stale content with the latest information).
- The invalidation rules are granular and can be configured to isolate categories/products that were modified for "surgical" invalidation – you don't need to clear the entire site cache!
- Dependent category/product listing pages that include these modified products are included in the invalidation scheme. An update to Product A will trigger a cache refresh for all pages on the site that include Product A.

The last two points can't be overstated as it mitigates adverse performance implications of a complete site cache refresh.

A synchronized caching strategy across application and network layers is essential to providing customers with accurate product, pricing, and availability information. It's imperative to have a well-defined cache invalidation strategy that can detect changes automatically and update the affected content and/or related pages.

For the business user, a search index, although not directly related to cache, can still impact cached pages. HCL Commerce Cloud automated processes are designed to keep everything in sync. The result is empowered business users who can quickly and effortlessly make changes on-demand to search with confidence and predictable outcomes all without relying on IT.

2 Special Prices for Special Customers – Don't forget about B2B!

Contracts and entitlements are hallmarks of many B2B relationships often with complex pricing tiers, segmentation, and order-of-operation rules, to name a few. The business rules can get very complicated (and costly) to integrate with 3rd party solutions especially when customers:

- Only want results that contain products they are entitled to buy, thereby reducing friction in the buying process.
- Want pricing that reflects their contract pricing, considering all discount and promotion pricing to offer them the 'best' possible price.
- Want to be able to search by price in their preferred currency.

Search results are driven by more factors than you realize. B2B Customers want to see their contracted pricing and product entitlements both in search and on product pages.

HCL Commerce Cloud harnesses the power of search to optimize contracts and entitlement rules with pre-defined workflows that are fully extensible. For the business user, that may include a combination of multiple/tiered contracts, promotions, and/or entitlement rules to determine what products to display (entitlement) and the correct contract price. This is all managed and configurable with the platform vs. having to build out costly integration to support the various permutations that you need to support the business today and in the future. The contract framework can also be designed to automatically 'inherit' entitlement and pricing from other contracts, thereby reducing data redundancy and optimizing pe rformance.

For the technical user, HCL Commerce Cloud leverages the power of search to index prices and more, while offering the following advantages:

- The scope of the price index includes List Price, Offer Price, and Contract price.
- The price index is based on the pricing model that your store (e-site / microsite) uses.
- Prices can be calculated fully or recalculated for a specific product/SKU, contract, or currency.
- The process is optimized by only indexing supported currencies against active stores and ignoring the rest.
- The calculation logic takes into consideration current and future contracts that can be previewed within a store.
- The contract modelling feature and inheritance capability can drastically reduce the number of records in your database.
- Finally, performance and scale.

3 Manual steps are points of failure

Most mature organizations will deploy and test search rules/configuration in lower environments before propagating final updates to a production/live system.

There are many benefits to this approach, including:

- Reduction of manual effort by a business user to re-enter data in another system and mitigate data entry errors
- The staging index is copied into production
    - o Reduces indexing time in production
    - o Mitigates the introduction of a corrupt index in production via a Production triggered re-indexing process
- Staging and Production always remain in sync

It's late at night as the IT team manually migrates updates from Staging to Production. Wouldn't it be great if Business Users could promote search changes directly into Production at any time of the day without IT support?

A seminal and perhaps underrated, feature in **HCL Commerce Cloud** is the powerful ability to synchronize and promote changes between a Staging/Authoring and Production environment automatically. Business users can configure changes and test updates against production like data (within the scope of PCI) and confidently publish changes to production without IT intervention.

And yes, cache invalidation is also part of the equation and built into the process. Similar to the cache considerations, you must be wondering how long it takes to see these changes in a live environment. The answer is NRT! (No, we're not referring to Nicotine Replacement Therapy!).

NRT = Near Real Time

In summary, here are some of the most salient features of HCL Commerce Search:

- Your changes take effect almost immediately! Whether the catalyst is a data load, delta/full index trigger, or manual entry through a Business User Interface, the system will re-index and deploy changes right away.
- Automation reduces the chance of errors - these deployments can be scheduled.
- Empowered business users – users can trigger updates and focus on crafting a great customer experience, not work on tooling.

4 Take control of your search

If the pandemic taught us anything, it's the need to be agile and respond quickly to anything the market may throw at us. Don't get locked into a platform where you don't have the control to extend and customize – and end up looking like everyone else!

This applies to the business user tooling too. Extensibility via APIs enables your marketers and merchandisers to be more efficient and effective by customizing the business user tooling so they can do their job better. You can now do more with less.

One of the most significant advantages of leveraging the embedded HCL Commerce Cloud Search capability is the freedom and flexibility to customize or extend the **search index** and **search runtime** life cycle. This allows the Business to evolve Search to meet their current and future needs. This is powerful – you can configure or customize practically any aspect of the search logic to suit your business requirements. 3rd party solutions typically offer some degree of flexibility but often with predefined boundaries that effectively limit the extent of customization. This becomes even more apparent when integrating with multi-tenant SaaS solutions. What's more is that even if you introduce changes/customizations in other solutions, you still need to ensure that other processes that we discussed, remain in sync. Let's elaborate on some of these capabilities.

Search starts outside of your website and continues across every touchpoint as it orchestrates business processes to deliver highly relevant experiences. An inflexible search that is hard to change and/or poorly supported by the search engine vendor leaves business users frustrated at what they can and cannot control.

Business Users are looking for ways to reduce manual effort in favor of automating rules based on specific criteria, especially when you need to correlate data from multiple sources. HCL Commerce Cloud Search provides the ability to **ingest**, **transform**, and **load** data from virtually any source and each step can be customized with business logic – this is powerful! Aggregating and/or correlating data POS, Marketing, and Data Warehouse Analysis is an example of how this can be applied to drive the search experience in terms of relevancy, recommendations, boost/bury, etc. The transformation tools allow you to programmatically define rules and manipulate how the data is organized and build relationships across different data sets reducing manual work to set up and maintain specific rules.

The search framework is driven by a programming model that is like a factory assembly line where each business component can contribute its own criteria to ultimately form the query that is sent to the commerce search engine. Some examples of business components are Marketing for search-based merchandising rules, or contracts for entitlements.

You can also intercept and modify the search query – for example, override the sort criteria that was part of the original search string before it gets executed, or filter the list to only include products from a certain manufacturer. You have complete control over this process.

Finally, once the final query is built and submitted to the Commerce Cloud search engine, you can also manipulate the results that are sent back to the user. An example of this might be to include products based on a condition that requires a specific manufacturer to exist in the search result list. The flexibility is quite extensive.

In summary, you can:

- Ingest, Transform, and Load from virtually any source
- Intercept and modify queries prior to search engine processing
- Alter the final results presented back to the user with conditional logic and/or rule based criteria

5 Don't touch this (data)!

Data is currency. When a consumer or buyer searches, they are telling you what they want, how they categorize or view products and services, even providing insight into how they purchase products. Getting search right and delivering highly relevant search results is proven to lead to higher conversions. No longer are you solely competing on price, now you are competing on service, on shared values and on a frictionless customer journey. Why trade away your data regarding customer buying behavior and let a third-party aggregate the information, even if they anonymize it! Your competitors love getting the benefit of your hard work to acquire customers and what it took to convert them.

Would you share the plans and specs of your latest device? Why then, would you share the secrets to your success in acquiring customers and converting sales?

Search data should stay with you and not shared with everyone on the service. For example, when sales are trending based on events happening on social media you want to maximize your sales without helping your competitors. The insights from search are worth their weight in gold and deserve to stay out of the hands of your competition.

HCL Commerce Cloud is a cloud native hybrid commerce platform, designed to give you both the convenience of SaaS, like fast time to market, with the control you desire. No-one else sees your data unless you decide to share. And that goes for the security of your data too – you decide what's important.

6 Show me the money (and savings)! – TCO & Pricing Model

By using a 3rd party model, not only are you not solving the issues highlighted above, but you are also incurring cost and the extra time and effort to integrate and maintain the solution.

HCL Commerce Cloud Search is an integral part of HCL Commerce Cloud that augments Elasticsearch with flexible and configurable business capabilities to help your business users create the best possible customer experience. This also affords you significant integration costs savings to enable all the capabilities and supporting processes described in this article. Finally, as your catalog grows, so does your savings – you don't pay any extra based on the size of your catalog.

In Summary

High performing search that offers relevancy, control, flexibility, and reduces TCO is not always easy to achieve. But it gets a lot easier with the right tools especially when it's right out-of-the-box – no assembly required!

By addressing the 6 secrets documented above you are optimizing your commerce platform and will realize these 3 major benefits:

- **Grow sales** – faster search and enhanced performance equals more conversions
- **Increase customer loyalty** – highly relevant search results for a frictionless experience
- **Create unique experiences** – make your brand stand out from the competition

For a free consultation and evaluation of your search capabilities, reach out to schedule a meeting.

Request a meeting – https://www.hcltechsw.com/commerce

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