SELECTING ECOMMERCE
TECHNOLOGY
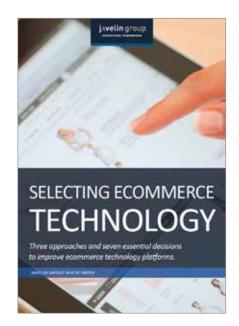
*Three approaches and seven essential decisions
to improve ecommerce technology platforms.*

JAVELIN GROUP WHITE PAPER

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eCommerce Technology Selection

Three approaches and seven essential decisions to improve ecommerce technology platforms

With omni-channel retail at the heart of many retailers' aspirations, the rise in consumer expectations and the highly competitive market place, many retailers are reviewing their key ecommerce technologies to ensure they are sufficiently functional, flexible and scalable to support their business plans.

This paper explores the drivers for ecommerce technology change, compares three options for improving technology functionality, and discusses seven essential technology decisions.

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DRIVERS FOR TECHNOLOGY CHANGE

Growth in online sales, international expansion plans, or outdated technology, which does not allow for integration between channels, are key drivers for technology change.

Growth and scale

As the online business grows, the underlying technology needs to scale accordingly. A significant rise in website traffic and customer orders, particularly during peak trading periods, may reveal weaknesses in the ecommerce technology, which are difficult to resolve with the existing systems. High end ecommerce platforms have a number of deployment patterns proven to work at scale, but this is less likely to be the case for home-grown or low end technologies.

And with online growth, the number of retail business users also grows. The ecommerce technology needs to support new ways of working, which become essential in larger teams, to avoid conflicts as different disciplines co-ordinate their activities. For example, some ecommerce technologies provide work spaces enabling multiple teams to work on the same areas of the site simultaneously, publishing their changes at different times or merging them through workflow to accelerate publication schedules.

International expansion

The search for growth takes many retailers beyond their home country, and online retailers have been particularly adept at growing significant overseas sales. Wiggle, ASOS and Boden are all good examples of UK online/catalogue retailers who have had tremendous success with overseas sales.

New technology may be required to support the business challenges of international expansion. Examples include assortment planning, stock allocation, product data translation, new payment methods and fraud patterns, currency conversion, shipping charges and duty, brand restrictions on shipment destination, address verification and financial accounting. In addition, technology must be tested for performance and availability in overseas territories, and patterns of use may change and start to alter the economics of some technology investments.

Outdated technology

The drive to provide a seamless omni-channel experience for customers is a challenge for retailers with outdated technology. Weaknesses include an absence of integration between store, online and contact centre in key areas such as product range, price and promotion, product data and non-product content, marketing campaigns and messages, stock information, customer data, and order history. Online functions such as mobile web and geo-location services, on-site and off-site social interaction, on-site personalisation, and tailored marketing communications are often missing or poorly developed.

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When technology improvement is required across the board, or when business growth indicates future scale will be difficult to support, the core ecommerce platform will need to be replaced.

TECHNOLOGY IMPROVEMENT APPROACHES

Once a retailer has decided to review its technology, there are three main options to consider. Each has significant pros and cons, and retailers need to spend time deciding on the best strategy. It is often at this point that a retailer will engage a specialist consultancy to help with the ecommerce technology strategy and selection.

1 Improve the current platform

Improving current technology is often the lowest cost and least disruptive of the options. It can be handled by the existing team and is the fastest route to releasing new function. However, over time, customisations added to commercial packages and home-grown systems tend to become slower to implement, more complex to test, and harder to support. There will always come a time at which, with hindsight, it would have made more sense to have chosen a more disruptive, higher cost, replacement option, than the slow-but-steady accumulation of small changes.

2 Add specialist technology

When functional weaknesses are concentrated in few areas, it can make sense to implement a specialist technology package. For example, adding a strong search engine might improve search and on-site merchandising and avoid the need to change the core ecommerce platform. If ecommerce performance is being reduced through lack of consistent and timely product data, implementing product data process changes alongside a PIM (Product Information Management) solution may be the answer.

There are many types of package and for each one there is a large number of competing vendors. Implementing a specialist technology solution is many times easier than replacing the core ecommerce platform, and the work will not be wasted if the ecommerce platform is upgraded at a later date.

3 Replace the core ecommerce platform

When technology improvement is required across the board, or when business growth indicates future scale will be difficult to support, the core ecommerce platform will need to be replaced.

The cost, time required, and risk of disruption associated with this is significant, but so is the improved business performance achieved by using a leading platform. Although many of the major packages may look similar, each has significant advantages, which need to be understood in order to make the right choice.

Typical implementation costs vary dramatically according to the size of the retailer, the technology chosen, and the implementation partner(s):

eCommerce sales £100m - £1000m+, costs £5m to £100m+, timelines of 18 – 30 months
eCommerce sales £10m - £100m, costs £1m - £5m, timelines of 9 – 18 months

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Retailers with multiple brands or international operations need to decide whether one global technology solution can serve all countries/brands, or if multiple solutions are required.

TECHNOLOGY DECISIONS REQUIRED

With a change in technology there are many decisions to make, too many to document here, but those having the most impact on the final choice include the following:

1 CMS, ecommerce platform or both?

Modern CMS (Content Management System) packages are extremely capable, multi-site, multi-device, web experience management engines that duplicate (and often surpass) many features also present in ecommerce platforms. Whether a retailer needs a CMS, and if so how it should be deployed, is a complex question. The CMS typically provides more flexibility to the business user to influence the on-site customer experience, but the integration work can be extensive. There are some ecommerce platforms which already have reasonably good CMS tools built in.

In simple terms, the more important the consumer brand, lifestyle and advice content in the customer experience, the stronger the need for a CMS. However, this is increasingly a question being asked by retailers of all types.

2 Global platform or country/brand specific platforms?

Retailers with international operations or multiple brands need to decide whether one global technology solution can serve all countries/brands, or if multiple solutions are required.

A single global solution provides smaller countries/brands with tools far more capable than they could hope to justify in their own right, but these tools may require a larger business team with more specialist knowledge for ongoing work, than is appropriate for a small operation. A single solution will have a large development team building solid function quickly and deploying it in a robust data centre with disaster recovery and advanced performance management facilities, but the smaller countries/brands may struggle to have their requirements prioritised by the central team, who are focused on the needs of the major brand.

Typically, the more centralised the business and IT, the more likely a single global platform will be the right solution, although timing needs to be considered as the duration of a global implementation project will be far longer than smaller individual brand implementations.

Now that consumers expect to conduct all digital transactions through any channel, retailers are exploring the potential to use their core ecommerce platforms to serve all of the channels.

3 Same technology for web, mobile, and POS?

Now that consumers expect to conduct all digital transactions through any channel, retailers are exploring the potential to use their core ecommerce platforms to serve all of the channels. Key platform vendors, such as IBM and SAP hybris, are vigorously positioning their ecommerce platforms at the centre of an omni-channel world, and typical ecommerce builds now include mobile, tablet and PC function as standard.

However the question for stores is harder, as an ideal architecture would have one 'engine' powering both digital and store channels. The ecommerce platforms do not have some basic store POS functions, such as cash management, and lack resilience if the network connection fails, and the the POS vendors do not offer a strong ecommerce capability. As a result, most retailers are retaining separate POS and ecommerce solutions, with strong integration.

4 Hosted or on-premise? Licensed or open source?

Most retailers, and all retailers of scale, have large investments in data centre operations, supporting their back office and commercial systems. They must decide whether ecommerce technologies can be accommodated in existing data centres, or whether the characteristics of ecommerce operations, for example its 24x7 nature and the unpredictability of resource demand on top of a long-term growth trend, requires alternative hosting.

Some ecommerce technologies (e.g. Demandware) are only available through a hosted model, paid for on a revenue share or monthly fee basis. Revenue share tends to work well for high margin categories (e.g. fashion), and is not economic for low margin categories (e.g. food, electrical). Other technologies are traditionally licensed and can be hosted on-premise, at an external hosting facility (of which there is a good supply), or managed via a services partner, which is often the same partner used to implement the platform in the first place.

There is a blurred line separating licensed from open source ecommerce technologies. Some platforms, such as eBay's Magento, is ostensibly an open source solution, although it is developed by a commercial entity and "enterprise" editions of it must be paid for. Other platforms, such as Elastic Path, are fully licensed, yet source code is provided to customers. Most retailers are moving away from bespoke or open source solutions for ecommerce, having found long term challenges with scalability, flexibility and agility.

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> Retailers with a CRM investment should aim to re-use this capability for their online operations, and start to build a single view of the customer across all channels.

5 Which additional solutions are required?

An ecommerce platform, while a significant investment in its own right, is not sufficient to run most retail operations. There are around 40+ additional types of software package which typically integrate with ecommerce platforms. For each of these types there can be dozens of software vendors and service providers. No retailer will need all 40 additional solutions, but it can be a challenge to work out which ones are required, which are optional, and which are not needed or already included in other systems.

Some of the larger additional solutions include:

PIM (Product Information Management) solutions provide the means to standardise and formalise the process of capturing product data and enriching it ready for the web. Some have tools to enable product translations to be entered and managed. Some provide supplier portal features to enable a retailer's suppliers to load or key in data for their product, in some cases extending to stock and price information.

OMS (Order Management System) solutions provide a toolbox with which to build customer order management processes, connecting customers and their orders with carriers, delivery options, payment systems, inventory checks, order status updates, drop ship suppliers and so on. The more fulfilment options (multiple warehouses, stores, etc) a retailer has, the more important the OMS becomes.

Search engines optimise the on-site search and navigation experience and give business users tools to manage synonyms, ranking algorithms, on-site merchandising slots, faceted navigation, navigation bars and landing pages.

Contact centre technology is varied with most retailers using the ecommerce and OMS platform to provide transaction management, alongside a telephony, email and contact management solution.

6 What is the role of ERP and CRM?

For retailers with an ERP (Enterprise Resource Planning) solution, a choice must be made as to what extent it will participate in the overall ecommerce solution. Typical ERP functions include product data management, customer order management, contact centre, and fulfilment. Retailers must take into account the functional footprint of their ERP, whether it is available 24x7, has 24x7 support arrangements (a subtly different consideration), the cost of extending it to provide the required function (for both people and licenses), and the agility to support future changes.

While most ecommerce platforms have in-built customer databases, their segmentation and marketing features can feel limited compared to an enterprise CRM (Customer Relationship Management) solution. Retailers with a CRM investment should aim to re-use this capability for their online operations, and start to build a single view of the customer across all channels. Retailers without a CRM may choose an ecommerce platform with more advanced customer database features and extend these to analyse offline behaviour.

Choosing the right solutions, and implementing them well, is a source of competitive advantage for retailers of all sizes.

7 In-house or external implementation team?

The implementation team has a major bearing on the project's cost, duration and quality. There are three main choices:

The in-house team

This team, which may be supplemented by contractors with specific platform knowledge, is normally the lowest cost (if all goes well) and provides a ready-made team for ongoing support. However the team's lack of experience with the technology may show up in poorly structured code, which is difficult to enhance, upgrade, and scale, and performance issues.

External large systems integrator

This team makes most sense when there is an existing relationship in place. They already know the retailer's business and systems, bring change management and programme management skills, can ramp up quickly for a big project, and provide hosting and post-implementation application maintenance services.

External small specialist integrator

This team, with deep skills in a specific technology, is the natural choice when the retailer prioritises agility of delivery, and can match this with rapid internal decision making processes and a relatively small group contributing to business requirements. A carefully selected specialist integrator will typically produce the highest quality code in the shortest duration, but may not be able to deliver the largest programmes alone.

SUMMARY

In the ecommerce world, technology choices are not simple and have long term implications on business performance. The fiercely competitive environment and the high expectations of customers require a functional, flexible and scalable solution. Choosing the right solutions, and implementing them well, is a great source of competitive advantage for retailers of all sizes.

ABOUT JAVELIN GROUP

Javelin Group is Europe's leading specialist retail and omni-channel consultancy, with more than 190 professionals based in London and Paris. Clients include most of the UK's top 20 retailers and many large retailers and brand owners across Europe and beyond.

We have Europe's most experienced ecommerce technology advisory team. We have helped over 50 retailers across the world with their ecommerce technology strategy, architecture and software choice, with clients including:

- Marks & Spencer, Debenhams, V&D, De Bijenkorf, Karstadt, Breuninger
- Delhaize, Tesco, Majestic Wine, Jumbo, Woolworths Australia, Coles, Auchan
- Dixons Retail, Carphone Warehouse, Media Saturn, Bosch Siemens
- New Look, Radley, Mulberry, Bestseller, Clarks, OTTO
- Vision Express, Mothercare, Wolseley, Late Rooms, Direct Line Group

Our ecommerce technology selection service, proven over the course of dozens of projects for retailers and brands around the world, covers all core technology types and provides a structured methodology, experienced team and template materials to accelerate the process and ensure quality of advice.

If you would like to meet us for an exploratory discussion of your ecommerce technology requirements, please contact Will Treasure:

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