

**PRODUCT
RECOMMENDATIONS
AND ARTIFICIAL
INTELLIGENCE IN
ECOMMERCE**



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Product Recommendation Algorithms for Better Purchase Decisions

Decisions

A typical online shopper sees thousands of product recommendations in a week.

Whether it be on an eCommerce website, on e-mails, on advertisements or on social media, a product recommendation is something that is typically designed to facilitate purchase decisions by helping customers easily identify products that match their tastes and needs. If you are an eCommerce professional, you will be delighted to learn that such product recommendations do not only support but also influence decision-making and outcomes.





While the initial goal of a product recommendation tool was to reduce the information overload for Internet users and make the information retrieval more efficient, it has become a crucial strategic tool for companies in the online markets. A product recommendation block that is present on a product detail page can be very persuasive in the sense that it affects online decision-making by displaying alternatives that are similar to the viewed product.





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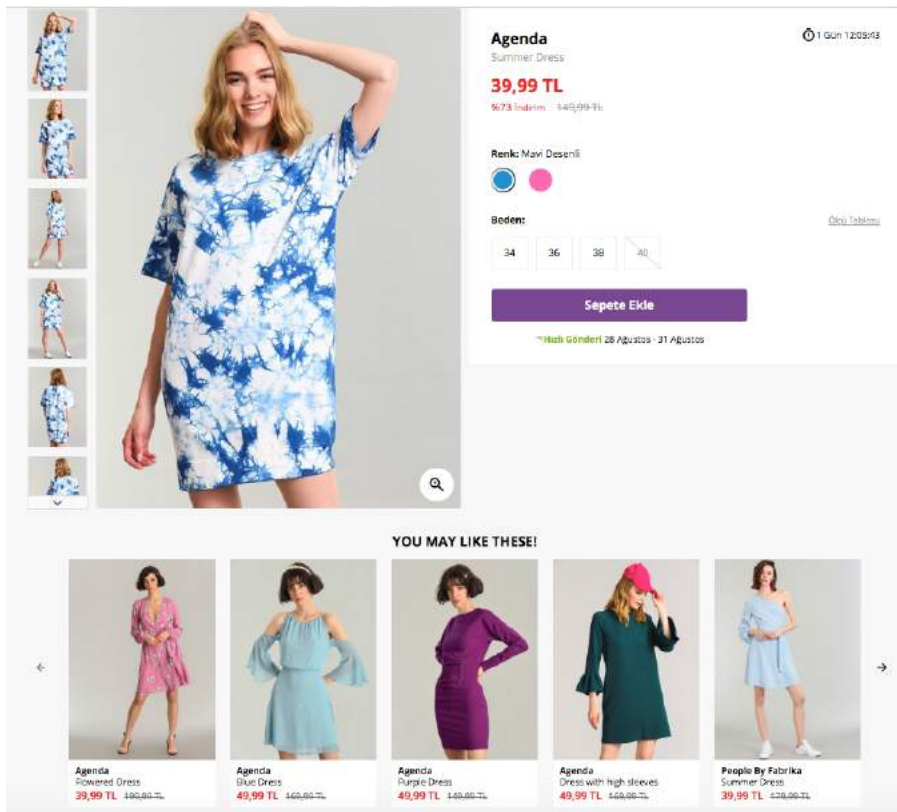
Especially in today's omnichannel retailing world, product recommendations have become important in retailer strategy. The increasing variety of products and information available today has led to an increasing diversity of consumers' demand, turning into a challenge for a retail store to provide the right products in line with customer preferences. Recommender systems that use big data to recommend complementary products are a tool to cope with this challenge because – through a product recommendation widget – it is possible to,

- Fulfill customers' needs and expectations
- Help maintain loyal customers while attracting new customers
- Improve customer service
- Increase sales and profitability

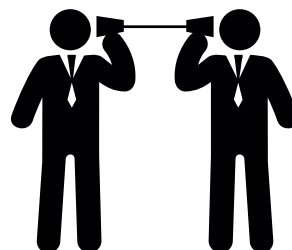




The Role of Data Collection and Processing in Product Recommendation Systems



Recommender systems focus on the various algorithms and techniques to get the most accurate prediction of users' preferences. For instance, here at **Perzonalization** we use AI powered and real-time microsegmentation technique to come up with the best product recommendation set.





A good product recommendation engine shall easily use the below data to display a solid list of recommended products:



- Clickstream behaviour: Views, likes, shopper behaviours like 'add to favorite' and 'add to cart'
- Transactions: Date, time, amount, price of the order along with the customer ID
- Stock data: Size, color, model etc. based stock movements
- Social media data: In the case that unstructured data can be matched with a single user
- Customer reviews data: If product reviews are present can be boiled down to product specs
- Retailer's commercial priorities: Brands/models that should be displayed in the product recommendation set
- Customer lifetime value: Recency, frequency and monetary value of customers
- Popular products: Products with high turnover rate



However, conventional recommender systems often suffer from lack of scalability and efficiency problems when processing or analysis of the above data on a large scale. State-of-the-art computing techniques now allow chunks of customer data to be processed and with high accuracy, so a good eCommerce recommendation system like the one we have here at **Perzonalization** is capable of tracking and profiling millions of customers in real-time and providing personalized product recommendations to online shoppers.





The Importance of Product Recommendations in eCommerce

Online product recommendations provided by product recommender systems are crucial not only for the eCommerce website but also for the online shopper because they lower the product screening cost for the consumer and positively influence the customer loyalty by increasing the decision-making quality. When an online visitor is able to easily discover a product, she will be more inclined to shop from that eCommerce website, again. This will be translated into increased loyalty for that e-retailer.





If you are in online retail, you will eventually face the decision of how to generate and deliver personalized recommendations to your users by choosing among many product options. And at that point, you will feel that you need a retail recommendation engine for your business. Believe me, choosing a recommendation system for eCommerce is a tough decision even for the sophisticated buyers.





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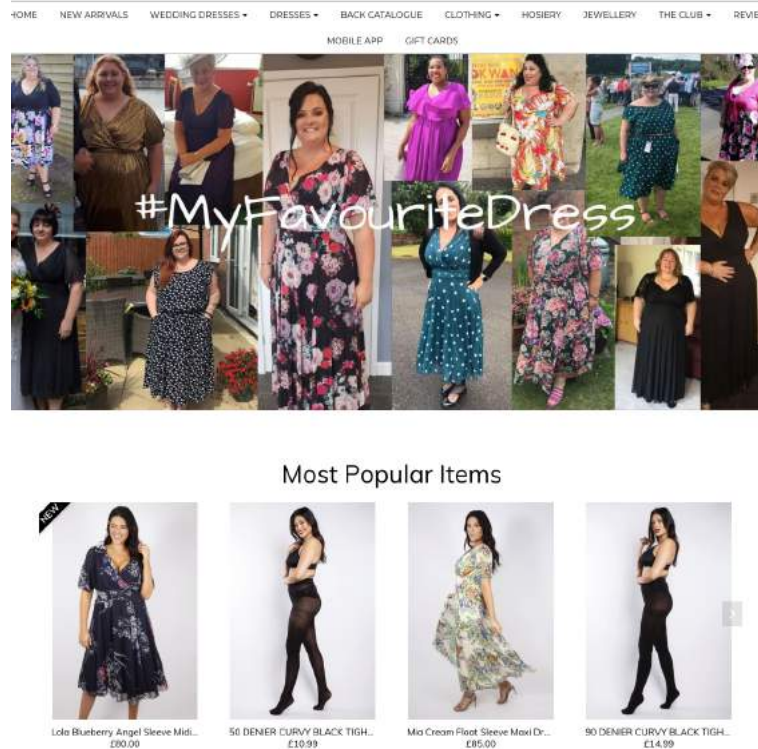


The decision of what kind of recommender engines should be used to personalize an eCommerce website has a strategic value because it will affect the way customers will perceive your company with respect to your competitors. Choosing the wrong way to personalize recommendations may not only require the redesign of your information systems but also to rebuild the relationships with your customers and even your entire brand strategic positioning. No worries, we have some tips and tricks for you if you are looking for the best recommendation engine for your business.





How to Screen Out The Best Recommendation Systems



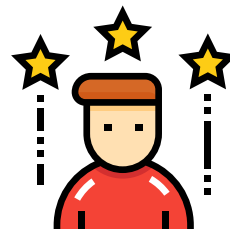
The toughest part of selection a vendor for recommending products on your online store is that; at the end what is displayed on the frontend is the same for all parties – a product recommendation widget. What lies beneath the surface (or on the backend) is what makes the difference and – as the decision maker – you’ll never have the chance to investigate someone’s source code!



This truly makes the vendor selection process complicated but there are also some solid areas that you need to look at if you want to make a good decision:

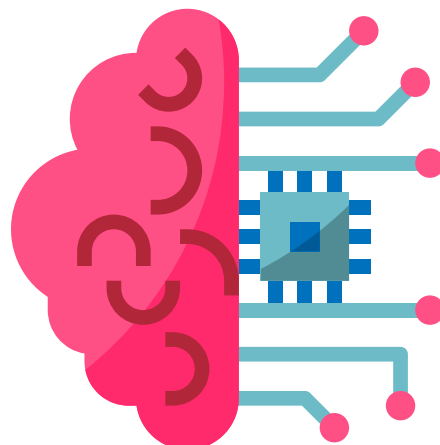


- Deciding on the type of integration: This is somewhat crucial as it'll affect your whole buying process. If you are hosting your online store on Shopify, a Shopify personalized recommendations app like the one we have here at Personalization will be your go-to destination. Similarly, a Magento product recommendations extension may also save you from the burden of manually picking recommended products. If you are not using a hosted solution for your eCommerce operations, then you'll surely need a personalization partner that has skills and experience in making integrations with in-house developed platforms.





- Deciding whether or not you need AI product recommendations for your business: Using AI provide many shortcuts for eCommerce personalization however if your store has less than 10 products, then using AI may not be meaningful in your case. You may delay your personalization vendor selection project or look for a method to handpick recommended products rather than working with an external recommender system for eCommerce.





- Assessing the machine learning performance: If you decide that you need personalised product recommendations, then you'll absolutely need to work with an AI powered personalization company. After this decision will come the need for an assessment. If you are considering more than one vendor, then try to go into a proof of concept or trial process with the 2 eCommerce personalization suppliers you shortlisted. When a trial work is executed, you'll be able to see if their machine learning algorithms are really making a positive impact on your business.





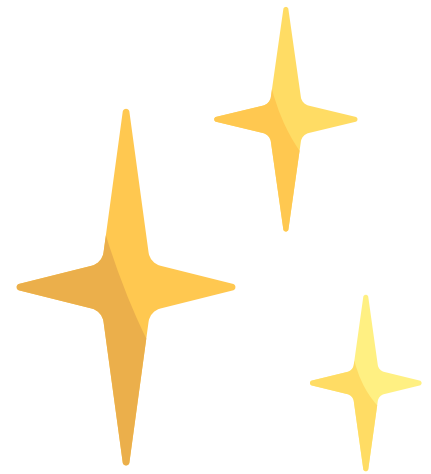
- Understanding the pricing structure:
A pricing model that scales with your business may help you control your costs. So in that sense, a vendor with a usage-based pricing model may be your best choice when it comes to choosing your recommendation engine.



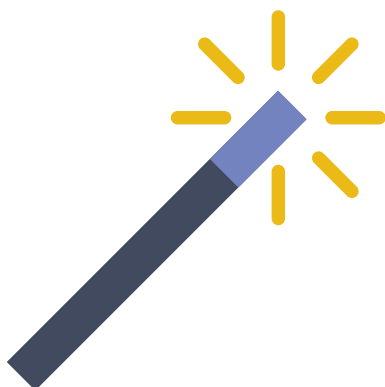


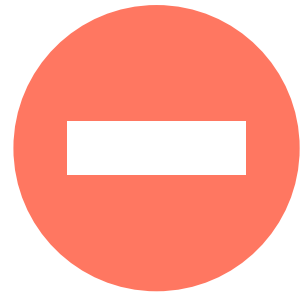
- Getting familiar with the rules and different algorithms: Every personalization vendor uses different algorithms. When you are making your vendor selection, you need to carefully investigate those rules and make sure that they apply for your business. At Personalization, we are trying to offer the most used set of product recommendation rules to our clients. Here is the list of different algorithms we use – try to get a similar list from your personalization vendor.





- Related products from like-minded shoppers
- Popular products
- Recently viewed products
- Rule based: “If this, then that”
- Discounted products
- New arrivals
- Frequently bought together
- Cross-sell
- Upsell
- Product/category reminder





The DOs and DON'Ts of Working With a Product Recommendation Engine

After you decide to work with a personalization vendor, you'll start to realize what a great choice you have made!

Especially if you partner with a real time and AI powered eCommerce personalization solutions provider like Perzonalization, you'll start to see the uplift in your revenues even from day one.





1

2

3

Number of pages viewed, repeat purchases and average order value will start to increase. You'll also have the chance to experiment with a comprehensive list of product recommendation algorithms on different page types of your online store. These will both help you optimize your offerings and increase loyalty. Any comments or questions? We'll love to help you out!



Are you a small online business owner?
Or a professional eCommerce manager?

It doesn't matter!

Get Personalization
and start uplifting your profits!



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