



## Recommender Engines with Altius

The rise of marketplaces (Amazon, Ali Baba, etc.) and the booming of subscription services (Netflix, Spotify, etc) have created a need for relevant recommendations. Businesses face increasing competition and must find ways to differentiate their product or service to maintain market share.



**Meanwhile customers are overwhelmed by the variety of products and services, unsure on what to spend their money and time on. Therefore, businesses that build a cohesive and unified experience provide more value to their customers.**

This can be as simple as recommending additional products or tailoring promotions to help customers discover new products or services. Personalised experiences gained elsewhere set the expectation for customer satisfaction. This forces you to not just look at direct competitors but also to those companies that have personalisation at the core of their business.

As your customers are faced with increasing choices, businesses have smaller windows of opportunity to demonstrate value. Building complementary product sets or offers in a pre-defined way, will not capture the full spectrum of possible preferences.

With the evolution of technology, specifically 'big data', enormous volumes of data are being collected, stored, and transformed in modern data platforms and data warehouses. Businesses now have unprecedented access to quantitative representations of customer behaviours across many platforms with high granularity.

This is an opportunity to leverage statistical methods and build recommender engines that can accurately represent customer preferences and clusters related products or services, curated specifically for that segment.

There are many approaches to building recommender engines, but it is entirely dependent on the objectives of the business. Is the goal to increase complementary sales? Or to provide convenience to your customer and improve engagement with your ecosystem? Depending on the need, the approach may change. We will work with you to define a solution that drives the most business value.

**The Value**

By successfully measuring customer preferences, our solutions have been able to increase product sales, improve retention, improve customer experience and increase the rate of 'cart-to-payment' conversions.



Our solution has kept customers positively engaged for longer, leading to additional exposure to relevant goods and services and increasing sales. Regardless of industry, if your business relies on building repeatable, positive interactions with customers, recommender engines can help.

By deploying a Recommender Engine, you can:

- Increase conversion on personalised recommendations that are driven by machine learning and supported by your data.
- Increase customer engagement with tailored products or services that keep user's attention and interest.
- Empower analysts to identify and report on winning products and services and to quickly act on predicted or emerging trends.
- Assess and simulate effectiveness of your marketing strategies as you discount, promote or take new products to market.
- Understand sales performance in real-time with live dashboards and event-based alerts.

With a variety of methods available, it is often unclear what the right method for your specific business problem is. There is no 'one size fits all' answer, rather a series of considerations which will help select the appropriate approach for your problem. We can help you with your business case, quantify the benefits of implementing a recommender engine and advise you on the best approach.

#### **Suitability**

The best results will be realised if existing datasets or warehouses containing customer, historic sales and product/service data are available for use. Ideally the data should be labelled with a customer ID, product or service ID, transaction details such as price paid, geography information as well as channel details (e.g. in-store, online, mobile etc.). Any further information such as web analytics, promotional, discount or loyalty schemes and marketing and mailing lists are also useful.

Transactional datasets derived from ecommerce platforms or Point of Sale ("PoS") systems can be used to perform behavioural analytics and mapping to understand how similar consumers behave in terms of purchasing across time, enabling accurate predictions as to how these groups may behave in the future, and what strategies should be targeted toward them.

For organisations with a lower volume of historical data, or with less granularity or a lack of ecommerce data we simply lower the granularity of the recommendation, meaning we recommend to persona types rather than to individuals or micro-clusters. This will result in an improved uptake of recommended products in the short term, as well as giving you an opportunity to identify areas for change in data capture mechanisms to enable more granular personalised recommendations later.



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# We have a click button deployment of our recommender engines architecture on Azure and we design and develop with your user-base in mind, leading to beneficial and engaging interactions for the user.

## Our Approach

Altius have an accelerated approach to implementing recommender engines for our customers. We have click-button deployment of our baseline recommender engine architecture on Azure as well as the associated Continuous Integration / Continuous Deployment (“CI-CD”) pipelines required for its configuration and enhancement for your particular operating environment.

We like to work collaboratively with your experts from your product strategy and technology teams as well as other relevant stakeholders in order to share knowledge in both directions. We will run workshops to align ourselves to your business, customers and markets. This will allow us to build a detailed picture of your business process, systems, data sources and customers.

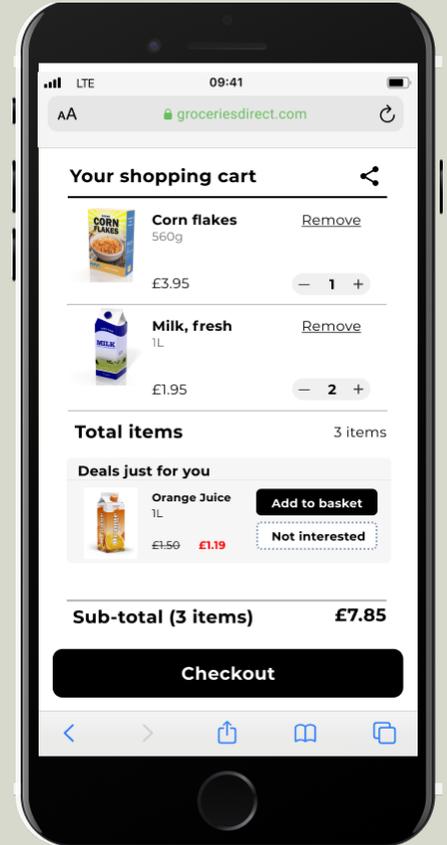
This is also critical to understanding any prior market knowledge and assumptions which should be considered in how we use existing modules of the solution, how we approach configuring the solution for your needs and where we may need to create additional bespoke modules for you. It also helps in defining hypotheses which can be tested against in control tests. The next step for us is to rapidly deploy and configure a Minimum Viable Product (“MVP”), tailored to your organisation, with a joint team made up of Altius team members and your experts.

Our team will thoroughly analyse your product and sales data to identify features of clustered customers and likewise for clustered products. This will allow us to establish mappings and a baseline estimate of the benefit this will bring to your organisation, as well as a road map to successful productionisation. Our unique set of code accelerators and microservices architecture grant faster deployment of these models, with quick integration into your current systems, reducing costs and time to production, bringing about a faster increase in bottom-line. This modular architecture allows us to quickly implement solutions while building bespoke modules specific to your business needs and target customers.

Our user experience team can customise interfaces to enable your brand and merchandising teams to test competing recommender strategies, and their associated models, to achieve optimal responses.

In developing interfaces and applications, we follow user-oriented design principles with the end user in mind. Depending on the user types in your organisation we can use templates or develop fully custom applications. Design and development are done with your user base in mind to ensure the solution aligns to the business process and leads to a beneficial and engaging interaction for the user.

**Start here.** Contact us to discuss the potential value in our solution for your organisation.



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