CASE STUDY

PRIVATE WEALTH MANAGEMENT SOLUTION FOR CHOOSING OPTIMAL ASSET ALLOCATIONS

Market Background

The individual investment advisory practice for many years had no significant changes in its process. Private wealth management requires direct interaction of the advisee with a financial advisor who assesses information, trends, and market sentiment to develop potential investment strategies.

But this model is hardly scalable with the growing quantity of transactions in the market and is losing its prime position to automated solutions featuring integrated algorithms and streaming data processing.

A solution that brings reliability, convenience, transparency and accessibility into managing private wealth investments by utilizing big data, artificial intelligence and business intelligence can meet the evolving needs of a dynamic market.

softserve

Business Challenge

Individual investors place a great emphasis on the reliability of their financial advisory when making investment decisions. Smarter, more transparent software algorithms ultimately translate to higher investor confidence when making assets allocation decisions. Customers also show increasing interest in having quick access to their financial holdings, circumventing the hurdles of a traditional financial advisory or broker.

Another challenge is that as a portfolio becomes increasingly comprised of different assets, its dynamics becomes more complex. Investors are looking for a forecast of these future dynamics for a given portfolio, as well as recommendations for products that have large upside potential with minimal risk. Providing reliable data for customers supports and guides them in developing their personal investing strategy and custom portfolio composition.

Project Description

Though forecasting capabilities already play an increasing role in high-frequency trading, it is not as common in consumer portfolio management systems. SoftServe aimed to merge those to bring more value to managing individual investor assets.

The solution was designed to cover two big blocks, known to be critical for wealth management decisions:

Stock price predictions – calculating the potential future gains or losses in value of a particular share.

Portfolio optimization – the tool uses smart algorithm to analyze the predicted time-series for a set of shares and defines asset allocation options that will align with user requirements to risk tolerance and desirable profitability.

SoftServe R&D team decided to make a commonly used algorithm even smarter than before having included market signals, corporate network, and sentiments analysis as a part of the input data for the analyzing function.

As a result, the algorithm uses a few types of input parameters for conducting the individual stock price prediction:

1. historical data on stock prices, volume history, and market average
2. sentiment analysis index based on reliable news sources
3. network science to embrace corporate network effects

This covers both the quantitative and qualitative parameters influencing the future price.

Possible Strategies Plot

Strategy	Risk	Profitability
ⓘ Current:	3.2%	+ 16,7%
ⓘⓘ Optimal:	4.1%	+ 17,2%
ⓘⓘⓘ Max profit:	58.08%	+ 18,6%

Market Value — $: 6000, 5000, 4000, 3000, 2000, 1000

Today — 25th of June

April, May, June, July, Aug, Sep, Oct

Time, months

Try: "Alexa, ask Robo adviser to show me Optimal Strategy Details"

The product provides individual investors with three alternative portfolio strategies to follow, with respect to the level of risk and returns:

• an optimal strategy
• a minimum risk strategy
• highest returns strategy (highest risk)

Predictions for the current portfolio structure is also provided.

Value Delivered

The product addresses two main issues that customers search for when managing personal investments.

Firstly, the reliability of the advice they receive from a financial adviser, whether via an automated solution or a live expert. SoftServe's smart algorithm brings transparency to the advising process. It incorporates not only an approach based on historical series (accessible for live advisory), but also processes large volumes of correlated data from the market in real time with a high degree of calculation accuracy, helping to assure an investor in their certainty of decision making.

Secondly, accessibility and convenience. The voice enabled personal assistant in SoftServe's private wealth management solution is able to seamlessly lead customers through the whole investing journey up to placing an order to a broker as aligned with a chosen strategy. The smart algorithm is integrated into the user-friendly interface and works with the Amazon Alexa Echo Show to bring the investing interaction experience with a robo-adviser to a whole new level.

ABOUT US

SoftServe is a global digital authority and consulting company, operating at the cutting edge of technology. We reveal, transform, accelerate, and optimize the way large enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation – from generating compelling new ideas, to developing and implementing transformational products and services. Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

Ultimately, we empower businesses to re-identify their differentiation, accelerate market position, and vigorously compete in today's digital, global economy.

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