Traditional PMS software strategies to face the rise of robo-advisory solutions

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Robo-advisory solutions represent the fastest growing category of actors within the wealth management industry. Their growth potential suggests these digital offerings could meet customer expectations.

While the wealth management industry is still suffering from a low-rate macroeconomic environment, competition increases. More stringent regulations, like MiFID II in Europe, also make it more expensive to ensure compliance. Traditional actors are under pressure to reshape their wealth management and advisory services by integrating these as digital services into their standard offering.

What is the current state of Portfolio Management System (PMS) offerings in Europe? How are software vendor strategies influenced by digital transformation, and especially by the emergence of numerous robo-advisory solutions?
In the turmoil of digital transformation across all industries, the CIOs of European Wealth Managers might ask themselves what the next best digital step is for them regarding the evolution of their portfolio management and advisory systems. In order to understand how traditional PMS providers have reacted to the numerous launches of robo-advisory solutions, we first describe the current robo-advisory model and the current market situation, and give an overview of the European market. We then discuss the current offering of PMS solutions and evaluate their digital maturity compared with the robo-advisory service offerings. Finally, we provide a view on the key evolutions identified for existing PMS solutions and interpret these into potential strategies for software vendors and options for CIOs of Wealth Managers.

**Current robo-advisory model and market overview**

A robo-adviser is an online solution offering automated investment guidance and portfolio management capabilities at a limited cost. It can cover different parts of the wealth advisory value chain; however, none can cover all.

- **Modern Portfolio Theory (MPT) at the core.** These digital solutions extensively use algorithms based on mean-variance optimization, rooted in traditional MPT. Coupled with online customer profiling, they offer a reasonably customized investment allocation strategy.

- **Mostly based on ETF investment products.** Over 80 percent of sample panel robo-advisory solutions analyzed 1) to minimize costs, robo-advisory solutions ease processing (ETF products are liquid and easily tradable) and maximize underlying diversification. Some solutions also provide access to stocks, bonds, commodities, and currencies (25 percent offer more than three asset classes 1). Limiting fees is their main selling point in a continued low-rate economic environment and also represents a component of investment performance.

- **Robo-advisory solutions target millennials.** These online investors are tech-friendly and financially savvy self-investors who are generally early adopters of these “gamified” automated investment solutions. Less wealthy investors benefit from low entry.

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1 Based on Deloitte panel research and analysis of 16 leading European robo-advisory solutions and their available offerings.
thresholds, which are very attractive to the Mass Affluent market (wealth below US$1 million). This market represents 39.7 percent of the total global wealth (vs. 45.9 percent for HNWI according to a Credit Suisse study\(^2\)). However, the target of robo-advisory solutions is broader; personalized investment advice in wealth management remains human-based and expensive. A digital robo-advisory offering is an opportunity to capture younger millennial clients with efficient and inexpensive rule-based investment solutions. It represents a potential starting point in the relationship to capture millennial clients, a generation that is expected to receive the biggest inheritance to date (estimated at around US$3.9 trillion by 2026\(^3\)). A robo-advisory offering can also help to streamline and enforce strict advisory processes, in line with applicable regulations.

• **An investment that matters.** Younger investors also consider ethical or socially responsible investments a major concern in decision-making. Motif Investing\(^4\) in the United States and Investify\(^5\) in Germany and Luxembourg have launched thematic investments to enable investing based on personal preferences and beliefs.

**Tremendous growth and potential.**

The robo-advisory global market is still growing at a fast pace; a recent study by Juniper research estimates that “total assets under management (AuM) by robo-advisers will rise twelvefold, from US$330 billion in 2017 to US$4.1 trillion in 2022”\(^6\)—still higher than previous estimates (see Figure 1). Revenue forecasts for robo-advisory platforms are also expected to reach US$25 billion by 2022, according to the same study\(^6\).

Nevertheless, very few robo-advisory solutions are reaching significant market share. The global market is led by US hybrid advisory solutions launched by Vanguard, Charles Schwab, and TD Ameritrade\(^9\), which have limited penetration in Europe. These leading US asset managers have answered the robo wave through corporate robo-advisory solutions combined with human advice. Vanguard’s Personal Advisor Services is the first digital advisory platform to reach the milestone of US$100 billion in AuM\(^10\).

This top mark of AuM bears no comparison with original robo-advisory disruptors Betterment (~ US$11 billion) and Wealthfront (~ US$8.2 billion)\(^9\), which have been significantly outrun in AuM, even though their investment entry thresholds (from $0) are much lower than those for the leading US asset managers’ solutions (up to US$100,000).

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\(^2\) Credit Suisse Global Wealth Report 2017
\(^3\) WealthX, retrieved from https://www.wealthx.com/report/preparing-for-tomorrow-a-report-on-family-wealth-transfers/
\(^4\) https://www.motifinvesting.com/
\(^5\) https://investify.com/app/portal/home
\(^7\) “2,500 percent asset growth projected for robo-advice platforms,” based on Cerulli Associates Inc. research, published by Investment News, 4 November 2015.
\(^9\) TechFluence, retrieved from https://www.techfluence.eu/investtech.html

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**Figure 1: Projections of AuM by robo-advisers\(^6,7,8\)**

(in billion US$)

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Cerulli Associates Inc. A.T. Kearney Juniper research

![Figure 1: Projections of AuM by robo-advisers](image-url)
While numerous robo-advisory solutions are providing digital-enabled customer experience, their actual reach in pure investment advisory may appear quite limited.

**The European market of robo-advisory solutions is lagging behind** with 98 players according to TechFluence and only €2.5 billion of AuM in November 2017. European markets still appear dependent on country-specific legislation and few FinTechs have reached critical size. UK-based Nutmeg is the only robo-advisory solution in Europe with an estimated AuM above €1 billion. The German solution Scalable Capital ranks second with an estimated AuM of €600 million, and the Italian company Moneyfarm is third with estimated AuM of €375 million.

The largest European markets are Germany and the United Kingdom (UK). According to TechFluence, there are already 41 robo-advisory offerings in the German market (excluding white-label offerings) and further partnerships with financial institutions are expected to deploy B2B(2C) solutions. The UK market appears heavily driven by pension-specific regulations with numerous robo-advisory offerings dedicated to pensions.

Robo-advisory solutions in Europe are also subject to the MiFID II regulation. The European Securities and Markets Authority (ESMA) has confirmed firms operating robo-advisory solutions must perform a complete suitability assessment and potentially adapt online questionnaires to ensure compliance. They must also explain the exact degree and extent of human involvement and clearly inform the investor on the role of the online questionnaire and sources used to provide investment and portfolio management services.

Large banks have already taken some action to accelerate their digital transformation and respond to the development of robo-advice. In 2017, BNP Paribas Asset Management, for example, acquired a strategic stake in the Belgian investment management company Gambit Financial Solutions (founder of robo-advisory solution Birdee). UBS Wealth Management USA is offering hybrid robo-advisory services through its...
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UBS Advice Advantage platform. While collaborating with the US-based SigFig robo-advisor since 2016, the Swiss bank has recently closed its automated online investment service in the UK, SmartWealth, more expensive than many robo-advisory solutions but also offering a mix of active and passive funds. Other players have decided to develop in-house solutions, like Banque et Caisse d’Epargne de l’Etat in Luxembourg with its SpeedInvest digital and automated investment product. Deutsche Bank is also offering the Robin robo-advisory solution based on its private banking entity investment analysis.

While numerous robo-advisory solutions are providing digital-enabled customer experience, their actual reach in pure investment advisory may appear quite limited. How have incumbent PMS vendors reacted to this market trend and how are they supporting banks to include similar digital features in their offerings?

Digital maturity of traditional PMS solutions compared with the robo-advisory value chain

In 2018, Deloitte conducted a non-exhaustive study of more than 20 PMS solutions covering wealth management and fund management capabilities for small and mid-sized actors, including both SaaS and BPO/middle-office providers. A more detailed study of seven PMS solutions with significant market presence in Europe enabled us to evaluate the current digital maturity of traditional PMS solutions against a robo-advisory value chain, regardless of whether solutions were used historically for fund management or for wealth management.

We can describe the end-to-end robo-advisory value chain as following a clear path of digitized and often gamified activities (see Figure 2):

- Prospective clients browse an online tool and digitally onboard their new investment solution
- The potential clients define their financial and risk profiles, including knowledge and experience, through online questionnaires
- The digital investors set out the financial goal(s) they want to achieve along with initial and recurrent contributions, which results in a goal-based investment strategy proposition for confirmation
- The investor can digitally monitor assets’ evolution and exposure in real-time and also generate a standard report on demand
- Alerts facilitate that tracking and recommendations aligned to preferences are pushed toward the investor to actively follow portfolio evolution
- Rebalancing of the portfolio enables realignment with the strategy and goal(s); these can be turned into investment proposals pushed to the investor prior to automated ordering

12 http://www.investmentnews.com/article/20180406/FREE/180409951/ubs-giving-sigfig-powered-robo-to-certain-clients
13 https://www.ft.com/content/21bec7e6-aba4-11e8-89a1-e5de165fa619?desktop=true&segmentId=7cbf99c9-9b61-4f6b-9430-9208a0233c8f%26%3E%26A6
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As of today, incumbent PMS vendors have often developed functionalities and/or tools for specific client implementations. However, they rarely offer dedicated built-in modules, for example for Digital Client Engagement or Financial Planning, which tend to be part of their roadmap.

Four out of seven incumbent PMS solutions of our study currently offer goal-based investment planning. Only a minority of traditional PMS vendors—two out of seven PMS solutions in our detailed study—can provide an end-to-end robo-advisory capability. In the course of our study, we found that even a market leader in core banking solutions had only scheduled to deliver an end-to-end robo-advisory solution at the end of 2018.

Such limitation in the possibility of offering digitalized customer experience should be compared with the customers' expectations to consume services anytime, anywhere. Surveys indicate that many investors expect to conduct the majority of their investment activities digitally in a few years' time, and 51.3 percent of HNWIs consider hybrid advice of high importance for the ongoing management of their wealth. The key question is whether PMS vendors can lower the attrition rate of wealthy investors and attract younger generations of investors, while automated investment solutions provide digital investor experience for a limited cost.

**Key results and impacts on existing PMS solutions**

Traditional PMS solutions differentiate from robo-advisory solutions through the breadth of wealth management capabilities available, but also from a technical and architectural perspective.

**Wider functional reach.** Aside from the robo-advisory value chain, traditional PMS softwares differentiate through their wider coverage of investment products and functionalities:

- Investment products include funds and standard investment securities accessible as direct lines in a portfolio, but also Forex, futures, or basic liquidities. Private equity investments can often be supported
- Portfolio management functionalities can be customized in terms of pricing, valuation, and exposure computation
- Various performance calculation methods can be used and some solutions offer further flexibility in including/excluding specific assets from calculations
- Portfolio managers can manage groups of clients and assets for monitoring and reporting but also to automate rebalancing
- Asset classes and allocation levels can be customized to the wealth manager’s needs; strategies can also be customized to investor specificities
- Ordering provides advanced allocation rules to support the portfolio rebalancing

They also support profiling, investment strategy definition, and rebalancing, but these advanced portfolio management functionalities are mainly accessible to portfolio managers in a web interface. The proportion of PMS vendors offering at least one mobile solution as standard to end customers (mobile or tablet) amounts to six out of seven solutions. These provide rather basic consultation capabilities for visualizing the evolution of invested assets and their performance.
Ongoing technical evolution. On the technology side, the vast majority of PMS vendors now offer additional cloud-based solutions aside from the traditional on-site implementation:

- Software Service Provider (SaaS): more than 90 percent of PMS vendors offer to handle maintenance on top of installation

- Hosting capabilities: about 60 percent of panel vendors studied offer the option to host infrastructure as well as the application

- As for Business Process Outsourcing (BPO), two thirds of non-BPO panel vendors also offer some type of outsourcing services to support operations or basic reconciliation tasks

Installation on premises nevertheless remains the main delivery model by far and only a few players have chosen the SaaS mode. Externalization of the infrastructure is becoming common for small-sized wealth management actors, even though the geographical location of hosting is of primary concern, especially for historical wealth management countries like Luxembourg and Switzerland. Such sensitivity to hosting location may evolve thanks to innovation and acceptance of digital encryption, especially as the regulatory framework is evolving favorably, even in wealth management offshore centers. This will facilitate the use of cloud-based solutions and favor the SaaS model, which aims to provide a ready-to-use solution to free business players from having to invest in IT services, thereby avoiding heavy maintenance and upgrade workloads. The SaaS model indeed provides the benefit of regular upgrades applied to the solution by the vendor.

Architecture requires further modernization. The current architectures available can be split among three main models:

- Traditional client—server architecture
- Service-oriented architecture
- Full API-based

Today, only two out of seven PMS solutions in our study¹⁶ offer an open architecture model with API integration, while a third solution is in the process of developing API for their main functionality.

None of the traditional PMS vendors in our detailed study offer built-in connectors with existing core systems or innovative middle layers such as Mulesoft or Five Degrees. Operating compatibility is still often limited to a single system (Oracle, Microsoft, etc.) and only two out of seven PMS solutions enable strong data extraction capabilities¹⁶.

While the adaptation to a digital modern architecture is still limited and strongly focused on the front-end digital layer for the time being, PMS solution providers may choose to redesign their architecture to address digital requirements from the core, which will require massive investments. Only a well-designed streaming architecture can target high-speed interconnection between micro-services.

Which strategy for PMS solution providers?

As incumbent PMS vendors still mostly lag behind in terms of digitalized services, they must opt for a strategy in order to respond to the digitalization of investment advice:

- Accelerate internal developments to launch a digital investor journey, with a user-experience comparable to that of FinTech players

- Partner with existing FinTechs to benefit from their B2B offering and white-label platform. Such a move will enable them to benefit from an existing digital experience or to cover specific capabilities. Sanostro, for example, specializes in currency hedging to reduce downside risk in portfolios thanks to selected underlying models of quantitative funds¹⁸

- Create a recognized marketplace that is attractive to both FinTechs and PMS software clients, targeting harmonized integration among participants. For example, a leading core banking and PMS provider already has 150 marketplace solutions, thus achieving one of the largest partner ecosystems

- Acquire a full robo-advisory player to complement the offering with a ready-to-use solution already accepted by investors

¹⁶ Based on Deloitte detailed study of seven PMS solutions with significant market presence in Europe
¹⁷ Capgemini World Wealth Report 2018
¹⁸ http://sanostro.com
Considerations should also extend to the availability of digitalized capabilities and the potential of PMS vendors to support a digital customer experience. Therefore, a digitally enabled front-end, a component-based architecture, an existing marketplace for digital solutions, or partnerships with FinTechs are differentiating strengths for future business agility.
Conclusion

When looking to move toward a more digitalized wealth capability, CIOs could think of two main solutions: either pushing their current software vendors to develop digital features more rapidly, or selecting a new PMS or robo-advisory software. In the latter case, considerations should not be limited to the coverage of business needs. Obviously, potential options for the CIOs of wealth management companies will depend on business priorities. The selection will also be driven by the type and size of the wealth and fund management player and whether technical and implementation knowledge can be mobilized internally.

However, considerations should also extend to the availability of digitalized capabilities and the potential of PMS vendors to support a digital customer experience. Therefore, a digitally enabled front-end, a component-based architecture, an existing marketplace for digital solutions, or partnerships with FinTechs are differentiating strengths for future business agility. Recent partnerships with FinTech solutions have resulted in the emergence of new digital solutions, like ABN AMRO’s launch of Prospery, a new fully digital wealth management platform, made available in the Netherlands and Germany, in less than 18 months.

Some specialized solutions also offer dedicated tools for online onboarding, goal setting, and risk analysis. These are worth considering in order to bring new digital features to existing systems. For instance, new FinTechs provide specialized services for currency hedging to create more added value for the investor while easing the work of portfolio managers.

Finally, outsourcing opportunities should also be considered. Infrastructure outsourcing can represent a great opportunity, and will facilitate the focus on core activity for wealth management companies. Business Process Outsourcing can also free wealth manager resources from basic recurrent back-office tasks, like reconciliation and securities masterfile management, to reallocate additional workforce to services geared at adding value for end clients.