

DOI <https://doi.org/10.30525/2592-8813-2025-spec-3>

DIGITAL TRANSFORMATION OF FAMILY OFFICES: TECNOLOGIES, AGGREGATION PLATFORMS, AND THE ROLE OF AI

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Abstract. This article explores the digital transformation of family offices through the integration of specialised technological platforms and AI-based tools. It analyses leading digital solutions for financial reporting, investment management, and data aggregation, with a focus on platforms such as Asora, EY Nexus, Asset Vantage, and Addepar. The research is based on a comparative analysis of platform functionality, market penetration, and the degree of artificial intelligence and machine learning integration. Findings show that platforms enabling automated reporting and asset monitoring improve operational efficiency, while AI-powered solutions enhance personalisation and client experience. Particular attention is given to asset aggregation platforms, which reduce data fragmentation and enable consolidated financial insights. The study relies on data from industry reports (e.g., UBS, EY, Campden Wealth) and official product documentation.

Key words: automation of reporting, investment analytics, client experience, operational efficiency, digital platforms, machine learning tools, data aggregation, portfolio monitoring.

Introduction. Family offices are specialised structures for managing the wealth of UHNW (Ultra-High-Net-Worth) individuals or families, performing investment, administrative and inheritance functions. The average number of employees in family offices is 8, ranging from 4 in small offices to 14 in large ones. Investment management is the primary focus of small family offices, although many operational processes are outsourced. Nevertheless, employees are usually overloaded with work, which increases the likelihood of errors, which is unacceptable in any business, especially in companies of this type. In today's era of increasingly complex financial markets and data, the introduction of digital technologies and solutions based on artificial intelligence (AI) and machine learning (ML) is becoming a key factor in improving the efficiency of family offices. Many traditional family offices have historically relied on manual processes and outdated tools (such as Excel), which has led to inefficient operations, data fragmentation and slow management decision-making (Campden Wealth, 2024, p. 11), (Gooch, 2024). The modern world is constantly evolving, and the emergence and rapid development of artificial intelligence have brought significant changes to business approaches. The use of modern digital technologies provides powerful advantages to companies operating in the asset management sector, allowing them to significantly reduce the time spent on customer service, whether it be the processes of onboarding new customers, developing investment strategies for customers, communicating with counterparties and customers, documentation, including pre-filling contracts using data from CRM systems, thereby reducing business costs and increasing revenues through both the intensification of marketing processes and the attraction of new clients, as well as reducing the time spent on current operational processes, preparing reports, investment strategies, communicating with clients and onboarding. Lagging in digitalisation carries risks: according to a Deloitte survey, nearly 17% of family offices directly cite insufficient investment in technology as one of their main risks (Gooch, 2024).

In contrast, the transition to modern digital solutions promises to increase productivity, reduce operating costs and ensure the long-term preservation of family capital (Battaglia Trovato, 2025). Companies that use modern technologies have a significant competitive advantage over their compet-

itors and, at the very least, can successfully develop in a highly competitive environment. This study analyses global trends in the digital transformation of family offices and the role of advanced AI/ML-based solutions in improving their performance.

Research objective: to investigate global trends in the automation of family office activities at the current stage of economic development, which modern digital technologies, software and solutions based on AI and ML affect the efficiency of family offices, and to determine the size of the market for modern software for family offices, the pain points and needs for implementing such technologies, and the potential benefits they can gain from implementing such technologies. In addition, to identify a new paradigm shaped by digital solutions based on artificial intelligence and a physical-digital approach, and to assess the benefits and risks that these innovations bring to financial institutions. The study aims to determine how digital transformation based on artificial intelligence and a hybrid customer-centric experience is redefining competitive advantages in the family office industry. In addition, it will assess the strategic implications for companies that are delaying digitalisation and explore future regulatory and ethical challenges associated with personalisation and automation based on artificial intelligence.

Methodology: The study is based on a review of current literature and industry reports for 2024–2025, including Deloitte Family Office Insights 2024, EY/Wharton Global Family Alliance Survey 2024, and Campden Wealth. (2024). The Family Office Operational Excellence Report 2024 and UBS Global Family Office Report 2025&2024, Morgan Stanley The Future-Ready Family Office: Evolving with Purpose 2025, Capgemini World Wealth Report 2025&2024, as well as analytical materials from leading consulting companies. An analysis of statistical data on the level of digitalisation of family offices, their priorities and challenges was conducted. In addition, specific examples of software solutions (Addepar, Advent, Mastro, Canoe, Black Diamond, Eton, Total Return, Asora, EY Nexus, Asset Vantage, etc.) were considered, and a comparative analysis of their functional capabilities was conducted. The research methodology is descriptive and analytical (desk research): data was collected from secondary sources, as well as from the websites of technology solution providers for family offices regarding their functionality and customer feedback on their effectiveness. Based on the information obtained, key global trends, market needs and gaps in existing offerings were identified, and conclusions were drawn regarding the prospects for further development of the digitalisation of family offices.

Global trends in the digital transformation of family offices. Global reports from recent years show that family offices are going digital faster than ever. Deloitte (2024) says that 43% of family offices worldwide are developing or implementing a comprehensive tech strategy this year (Gooch, 2024). This is a response to the realisation that almost three-quarters of family offices surveyed admit that they have either underinvested (34%) or only moderately invested (38%) in the technologies necessary for modern business (Gooch, 2024). This 'technology debt' has been accumulating for years, but now family offices are forced to catch up in order to remain competitive and ensure an adequate level of control. About 17% of offices directly cite technological lag as a risk to their operations, and administrative and compliance tasks still consume a significant portion of staff time (up to 19% according to some estimates, and up to 27% in North America (Battaglia Trovato, 2025).

Priority areas for digitalisation. Family offices are currently focusing on implementing technology primarily in the areas of security and risk management, as well as investment operations. The most common types of technologies used by family offices are cloud applications/services (87%), virtual meetings (82%), mobile communication applications (71%) and identity and access management systems to protect their own systems and data (61%) (Gooch, 2024). According to Deloitte, 65% of family offices have already achieved at least an average level of technology adoption for security/risk control purposes, 49% for investment operations, 47% for direct investment support, 35% for tax and estate planning, and 28% for client engagement (Gooch, 2024). This indicates that the basic

elements of digital infrastructure (cloud, remote communication, cybersecurity) have already been implemented in most offices. In addition, more than half of family offices (55%) actively use data analytics to support investment decisions, and 42% to optimise operational activities (Gooch, 2024). Thus, data analytics is becoming a standard tool, helping to identify trends and improve the quality of data-driven decision-making.

Initial implementation of AI/ML. A separate trend is the cautious introduction of artificial intelligence into family offices. The slow adoption of such modern technologies is linked to the tradition of confidentiality in the family office sector and concern for client data protection, which has had little impact on this sector in determining which artificial intelligence technologies should be implemented immediately and which require further development. According to Deloitte, just over one in ten family offices (12%) have already started using AI-based solutions, primarily to automate routine tasks, optimise portfolio management and improve risk management (Gooch, 2024). Although this figure is still low, it confirms the emerging interest in AI as a potentially 'transformative technology'. Data from a Wharton GFA (2024) survey conducted in collaboration with EY confirms that generative AI is still on the sidelines of core processes: only 10% of family offices reported that they already use AI tools to generate investment ideas and themes, while 56% do not yet feel any impact of AI on the investment management process, and 25% are not at all confident about its impact (Stover, Fankhauser & McKibbin, 2024). In other words, most family offices are still just looking at AI, waiting for more mature use cases.

According to a UBS study, the situation may change in the next five years, with family offices around the world planning to integrate artificial intelligence tools to improve operational efficiency. The most popular areas are financial reporting and data visualisation automation (69%), text analysis (64%) and portfolio analytics (62%) (UBS, 2025). In some regions, these figures exceed 75%, particularly in South-East Asia and North Asia. These figures demonstrate growing confidence in technology as a tool for improving transparency, accuracy and speed of service in wealth management.

At the same time, AI has already come to the fore in terms of investment themes: family offices are increasingly considering investments in related areas as a strategic priority. According to UBS (2025), almost three-quarters of family offices surveyed (75%) expect the banking and financial sector to be the primary beneficiary of generative artificial intelligence, alongside pharmaceutical companies (65%) and the healthcare sector (62%). At the same time, generative AI as an investment niche consistently ranks third among priorities, behind only healthcare and energy transition (UBS, 2025, pp. 28–29). These data indicate not only interest in the topic but also the active adaptation of investment strategies to disruptive technologies, within which AI is playing an increasingly important role.

Comparable conclusions are presented in a Morgan Stanley analytical note (2025), according to which modern family offices are increasingly integrating innovative trends into their investment policies, primarily generative AI and clean energy. The document notes that, given the long-term nature of investments and the high level of risk, offices are seeking not only to expand their sources of income but also to update their asset allocation strategies and find reliable sources of data for informed decision-making. Accordingly, investing in AI is seen not as a short-term fad but as a strategic vector of digital evolution for family offices aimed at strengthening competitiveness (Morgan Stanley, 2025, p. 28).

Growing need for digitalisation. Industry surveys unanimously confirm the significant demand for digital transformation among family offices. The Simple Family Office Technology 2024 report showed that 89% of family offices feel that their current technology stack is insufficient and in need of strategic improvements, and nearly half (49%) of respondents planned to launch or were already launching a new digitalisation strategy within the year (Simple, 2024). Similarly, EY notes that the younger generation of capital owners actively expects the automation of routine processes and broader use of outsourcing and AI to reduce the workload on staff (Stover, Fankhauser & McKibbin, 2024). In other words, the drivers of change are not only risks and inefficiencies, but also the evolution of

family office client demands: today's wealthy families (especially their NextGen) are seeking more technologically advanced approaches to wealth management. This is driving a shift from the outdated model of 'artisanal' management to a digital transformation strategy for family offices.

Operational priorities for technology – driven transformation in Family Offices. The above trends indicate that family offices are aware of the need for technological change. In this section, we will look at specific areas where digital solutions and AI/ML address existing needs, and back this up with data from reports:

Reducing manual work and consolidating data. Many family offices still face the problem of fragmented accounting systems and over-reliance on Excel. According to Campden Wealth (Operational Excellence Report 2024), 40% of family offices cited 'over-reliance on spreadsheets' as one of their top technology challenges, while 38% cited manual aggregation of financial data as a significant challenge (Campden Wealth, 2024). This not only takes up employees' time but also increases the risk of errors and makes it difficult to get a complete picture of assets. Digital platforms that automatically collect data from bank and investment accounts into a single system address this need by providing a single source of truth for family finances. As a result, routine operations (transaction reconciliation, report generation) can be performed faster and with fewer errors. The practical effect is illustrated by an example: the MyFO platform claims to save clients about 40 person-hours per month for every \$100 million of net capital through automated data collection and reporting (Battaglia Trovato, E., 2025).

Improved risk management and real-time monitoring. Family offices manage diversified portfolios of assets around the world, making real-time risk control and access to up-to-date information critical. Inadequate technology can be costly here. A case in point: one family office, unable to assess its exposure to a bank on the verge of bankruptcy in real time, suffered significant losses (Battaglia Trovato, E., 2025). Such situations highlight the need for automated monitoring of financial news and positions. This solution could warn a family office about problems with a counterparty or asset before losses become irreversible. Modern platforms offer tools for monitoring news and market events with customisable alerts: for example, using AI to analyse news feeds and social media can help identify events that affect the portfolio (reputational risks, asset price changes, etc.). Therefore, automated news monitoring remains one of the unmet needs that is becoming increasingly in demand.

ESG analytics and sustainable investing. Another pressing need is for tools to assess non-financial investment performance, particularly environmental, social and governance (ESG) criteria. Family offices have traditionally focused on financial returns, but in response to the demands of younger generations and societal trends, there is growing interest in sustainable investing. According to a study by Ocorian, 94% of family office professionals agree that ESG principles are a key factor in determining a family's investment priorities (Ocorian, 2023). Furthermore, according to UBS, nearly 49% of family offices consider climate change to be one of the main long-term threats (on the 5-year horizon). However, in practice, implementing an ESG strategy requires high-quality data and analysis. In the UBS Global Family Office Report 2024, 37% of respondents explicitly stated that better data analytics for measuring the impact of investments would significantly help them achieve their sustainability and impact investment goals (UBS, 2024). This points to a lack of convenient tools that aggregate ESG metrics, ratings, and sustainability news and integrate them into the decision-making process. Family offices are looking for solutions that allow them to automatically assess a portfolio in terms of ESG risks and alignment with family values. Thus, ESG analytics is a strategic niche where demand exceeds supply: specialised solutions (from data providers and fintech start-ups) are emerging on the market, but many offices do not yet have integrated tools for ESG monitoring.

Integration with CRM/ERP and a single 'dashboard'. A family office often serves as a hub not only for investment management but also for coordinating many non-traditional tasks, from

managing the family business to philanthropy and family legacy. This necessitates the integration of various systems: financial, accounting (ERP), customer relationship management (CRM), etc. Ideally, a family office manager wants to have a single information dashboard that consolidates financial indicators, family member data, trusts, charitable projects, event calendars, etc. In practice, however, many offices work in 'silos' (isolated software environments) where, for example, investment accounting is kept separate from the family's operational business accounting, and contacts and documents are stored in yet other systems. Integration with CRM would allow, for example, automatic synchronisation of information about family members, advisors, partners, philanthropic activities, as well as financial decisions. Modern platforms are beginning to offer such capabilities: for example, solutions such as EY Nexus provide two-way data exchange – client information from the CRM system can be updated on the advisor's desktop or in the financial application in real time (EY, n.d.). In other words, if a family office uses CRM to manage contacts and interactions, this data can be automatically reflected in financial planning tools, eliminating duplicate entries and providing a holistic context for decisions. Integration with ERP (e.g., the family business accounting system) is also critical when the family office controls the family's operating companies – the financial results of the businesses must be factored into the overall wealth picture. Currently, the integration of disparate systems is another gap noted in the industry. Surveys show that less than 30% of family offices use comprehensive cybersecurity solutions or cyber risk insurance (Stover, Fankhauser & McKibbin, 2024), which indirectly indicates a lack of attention to comprehensive IT infrastructure. However, the trend is changing: more and more ecosystem platforms are trying to offer modules for different tasks or easy integration via APIs so that family offices can assemble their own 'set' of services to suit their needs.

AI/ML applications in Family Office Software: selected use cases. The market for technological solutions for family offices has been actively developing recently. Both specialised start-ups and solutions from large consulting firms are emerging, aimed at automating family capital management. Let us look at a few examples of such platforms and compare their functionality. For comparison, ten modern platforms were selected that provide family offices with a wide range of digital capabilities, from data consolidation and analytics to back-office process automation. Table 1 summarises information about each platform, including the developer, functionality, AI/ML support, and application percentage (if available). Brief feedback from direct users (in italics) illustrates the practical effect of implementing these solutions.

Table 1

Comparative characteristics of platforms for family offices: functionality, AI use, and user reviews

Platform (developer)	Key features and functionality
Asora (Asora Ltd.)	<i>“The security features and data protection were relevant in driving our decision-making process, and we are thoroughly impressed with the overall experience.”</i> – Omnia Capital Partners. A multifunctional SaaS platform for single- and multi-family offices with a focus on automated data collection and online reporting. Provides a single secure space for all family financial data with continuous encryption. Consolidates banking, investment and alternative assets in real time, offers customised analytical dashboards and on-demand report generation. Built-in algorithms perform data cleansing and enrichment, minimising manual work (Asora, 2024). The platform supports document tagging, transaction tracking and alerts, as well as mobile access. Although Asora does not claim to have separate AI modules, its automatic data cleansing and aggregation mechanisms use advanced algorithms to recognise formats and anomalies, improving reporting accuracy.

Continuation of table 1

Platform (developer)	Key features and functionality
EY Nexus (Ernst & Young)	<i>“We need to use more sophisticated technology platforms and automate more of our back-office functions.”</i> – Founder, single family office (Campden Wealth, 2024). A scalable cloud platform for business transformation, created by EY for financial institutions and private wealth. Nexus integrates different systems (CRM, portfolio accounting, planning) through a single interoperable foundation, providing a 360° view of the client and all their assets. For family offices, this means the ability to consolidate disparate data (banking, investment, and administrative) into a shared space, simplifying the delivery of personalised recommendations and reports in real time. The platform includes modules for monitoring investment goals, end-to-end bi-directional data exchange between CRM and other applications, as well as product and service management, resulting in a significant reduction in time-to-market for new offerings. AI/ML in the EY Nexus ecosystem manifests itself through analytical components and partner solutions: the platform supports the connection of AI modules for customer behaviour analysis, data processing automation (e.g. NLP for text document analysis) and predictive modelling. However, Nexus's primary focus is on the flexible integration of different systems on a single digital foundation (EY, n.d.).
Asset Vantage (Asset Vantage Ltd.)	<i>“Asset Vantage offered the best combination of security, data integrity, and end-user capabilities at an affordable price.”</i> – Tectonic Advisors (case study). A cloud-based wealth management platform created by a family office for the needs of family offices. It combines consolidated asset reporting (public and private investments, bank accounts, real estate, etc.) with an integrated accounting system (double-entry accounting, general ledger) in a single solution. It provides automated transaction reconciliation and supports multi-currency accounting for complex multi-tiered ownership structures (Asset Vantage, 2023). The platform provides flexible portfolio analysis tools that take into account financial metrics, risks, and performance indicators. Users highlight the platform's strong focus on data security and access control. Asset Vantage integrates artificial intelligence elements, including intelligent transaction matching and automatic reconciliation (matching intelligence), to accelerate the closing of financial transactions. The company is also experimenting with generative AI. In 2023, Asset Vantage announced a partnership with Alkymi to use the Alpha LLM model to search and analyse data in financial documents quickly. This allows, for example, questions to be asked of an extensive array of reports and answers to be returned with references to sources, enhancing analytics capabilities. In this way, Asset Vantage offers a combination of traditional robust accounting functionality and modern AI innovations to improve family office productivity.
Addepar (Addepar Inc.)	<i>“We can now translate fund performance into what it means for the individual.”</i> – Chuck Lesem, Fremont Group. One of the most popular family wealth management platforms (Campden Wealth, 2024). Addepar provides a single view of all family office investment assets – from public securities to real estate, private equity, funds, collections and cryptocurrencies – with detailed disclosure of ownership structures. Key features include data aggregation from multiple accounts and systems, powerful portfolio analytics (return and volatility calculations, look-through to underlying assets), and flexible customisation of reports and dashboards to suit the needs of different family members or advisors. The platform is known for its high performance in processing large amounts of data and its convenient API for integration with other services (Addepar, 2024). In recent years, Addepar has been intensively implementing artificial intelligence and machine learning into its infrastructure. In 2025, the company acquired the start-up Arcus to integrate AI/ML into its platform further. The new capabilities are expected to include intelligent data management, automatic detection of anomalies in financial transactions, simplified data reconciliation, and predictive analytics to support investment decisions. According to management, Addepar aims to provide “adaptive intelligence” to users – that is, tools that learn from accumulated data and suggest optimal actions to family office analysts. In this way, Addepar simplifies the complexity of wealth management and is gradually evolving into a context-aware platform that supports family offices in an increasingly dynamic financial environment.

Continuation of table 1

Platform (developer)	Key features and functionality
Advent (Geneva®) (SS&C Advent)	<i>“Geneva has always been an exciting experience and [is a] user-friendly tool with modern-day needs.”</i> – G2 review, 2025. Advent Geneva is a renowned investment accounting and bookkeeping platform that has been the industry standard for significant funds and family offices for many years. It provides real-time portfolio accounting and general ledger support for any asset class, multi-currency and complex ownership structures. For family offices, Geneva solves the challenges of accurate accounting for alternative investments, interest and dividend accruals, partnership management and fund management (LP/GP structures) – with automated distribution of income among beneficiaries and report generation for each participant (SS&C Advent, 2020). The current version of Geneva (following the acquisition of Advent by SS&C) is actively being enhanced with AI-based innovations. In particular, the Tamale RMS (Research Management System) module uses NLP and machine learning to automatically tag analysts' notes and files, saving them time. In addition, SS&C has implemented AI algorithms in data quality control tools. For example, the Lumis component in the Geneva environment uses ML to improve the quality and integrity of data entered into the system. SS&C Advent's management notes that its development strategy is that “every product must include an element of artificial intelligence” to improve customer efficiency. Thus, Advent Geneva, traditionally strong in accounting, is evolving by adding AI tools to automate routine tasks (e.g., document recognition, risk forecasting) to remain relevant to the needs of modern family offices in the digital age (SS&C, 2020).
Masttro (Masttro Inc.)	<i>“It’s been incredibly useful to pull up the Consolidated Portfolio Analysis with our clients and use live benchmarks to evaluate investment manager performance.”</i> – Saul Dyne, Stonebridge Family Office. Masttro positions itself as a “WealthData” platform built by family offices for family offices. It provides a global consolidated view of a family's net worth, covering all asset classes – from public securities to direct investments, real estate, collections and even liabilities – in a single interactive system (Masttro, 2025). The platform features a user-friendly interface and extensive options for visualising ownership structures (Wealth Map tool). It supports automatic data aggregation from banks, brokers and custodians around the world, normalising different formats and currencies. An important feature of Masttro is Document AI, an integrated machine learning module for processing alternative investment documents. With its help, the platform ingests PDF documents (capital calls, fund reports, distribution notices, etc.), recognises key data and automatically enters it into the system, significantly reducing the manual work of analysts. This allows family offices to track the results of private market investments promptly. In addition, Masttro is implementing AI to provide interactive analytical insights to clients. For example, users can compare the performance of several banks or funds in a portfolio, identifying where the portfolio outperforms the market and where it lags. As users note, Masttro allows them to “get everything in one platform,” consolidating scattered international data regardless of jurisdiction or company structure. Data encryption and flexible access settings ensure privacy and security, critical aspects for UHNW clients.
Canoe Intelligence) (Canoe Intelligence)	<i>“By leveraging an integrated solution with complete flexibility, our team spends less time with operational duties surrounding alternative investments and more time supporting our advisors in building their business.”</i> – Matthew Woodward, AdvicePeriod. Canoe Intelligence specialises in automating alternative investment workflows using AI. The Canoe platform uses machine learning to automatically collect, recognise and organise data from unstructured documents related to private markets (e.g. fund reports, capital calls, communications from investment managers). The system connects to investor portals and email, automatically downloading PDF documents, after which ML algorithms classify the documents by type, extract key metrics (contribution amounts, valuations, etc.), verify the data, and upload structured information to an internal database or third-party family office systems. This eliminates the need for manual entry of numerous metrics and reduces operating costs. According to Canoe, implementing their platform allows them to process 20 times more stock documents per employee compared to the manual process. The platform integrates with systems such as Addepar and Black Diamond for seamless uploading of cleaned alternative data directly into the overall portfolio report. Leading firms are already using it: many of the world's most prominent family offices (including Blackstone's private equity funds and others) are Canoe customers. In 2024, Canoe announced \$36 million in funding from Goldman Sachs to develop its proprietary AI technologies further and expand globally. This underscores the market's confidence that Canoe's AI solves the pain points of family offices – namely, the slow and labour-intensive data processing of alternative investments – by transforming them into fast, scalable workflows.

Continuation of table 1

Platform (developer)	Key features and functionality
Black Diamond® Wealth Platform (SS&C Advent)	<i>“We’ve long relied on ... Black Diamond ... to serve clients more efficiently and intelligently.”</i> – Doug Turner, Diversified Trust. Black Diamond Wealth Platform is a modern cloud-based wealth management platform from SS&C Advent, designed to meet the needs of wealthy families and their financial advisors. It offers a fully integrated, all-in-one solution for family offices: consolidated portfolio accounting and reporting, data aggregation from multiple financial institutions, a built-in accounting and billing system, and a convenient client portal. Black Diamond supports the tracking of complex multi-asset portfolios, providing tools for rebalancing, cash flow management, billing and expense control. The platform has an open API architecture, which allows it to be integrated with other systems (CRM, planning, etc.) – for example, with Salentica CRM solutions and others from SS&C – to create a comprehensive technology stack (SS&C, 2025). The latest versions of Black Diamond feature the Black Diamond CRM module, which simplifies the work of advisors by automating customer interaction tracking and business processes (workflow). Although the platform's own AI capabilities are currently limited to analytical dashboards, the SS&C ecosystem integrates external AI solutions into Black Diamond. A notable example is the partnership with Canoe Intelligence: Black Diamond customers can automatically import alternative investment data processed by the Canoe AI platform. This significantly improves the efficiency of private asset management without manual input. Overall, Black Diamond serves as a central hub for family office operations, allowing employees to work in a single environment. As users emphasise, Black Diamond's advantage is its "deep integration, innovation and advisor-focused technology" (Diversified Trust, 2025), as confirmed by the recent unification of all SS&C wealth solutions under the Black Diamond Wealth Solutions brand.
Eton (AtlasFive) (Eton Solutions)	<i>“These AI-powered solutions will streamline family office operations and enhance risk management.”</i> – Satyen Patel, Eton Solutions. AtlasFive® from Eton Solutions is a comprehensive ERP platform for family offices that combines more than 20 modules for family financial management (investment accounting, bookkeeping, reporting, document management, trusts, tax accounting, etc.) in a single environment. The main idea behind AtlasFive is "one source of truth": all data on family assets and liabilities is stored in a centralised database, ensuring consistency of information and eliminating duplication or human error (Eton Solutions, 2023). The platform is cloud-based and focused on high security (certification, encryption) given the sensitivity of UHNW clients' data. In its latest updates, Eton Solutions is betting on artificial intelligence as an integral part of its offering. In 2023, the company launched EtonAI™, an integrated AI engine that leverages the capabilities of large language models (LLMs) to accelerate the work of the family office team. EtonAI allows employees to ask questions in natural language to the AtlasFive system (e.g., "What are the unrealised gains from private investments today?") and receive instant answers based on available data, significantly saving time on report preparation. Also presented is EtonGPT™ – a generative AI trained on internal family office data that can extract information from documents, fill in templates, and assist in the preparation of analytical notes (Eton Solutions, 2025). According to the company, the use of these AI tools can increase the productivity of a family office by 2-4 times (by automating routine tasks). AtlasFive, together with AI modules, provides proactive transaction monitoring (notifying of deviations), recommendations for cash flow optimisation and even preliminary analysis of investment opportunities based on specified criteria. This changes the operating model of a family office: less time is spent on data entry and report preparation, and more on strategic analysis and family interaction (Eton Solutions, 2025). Currently, the AtlasFive platform is used by over 700 families worldwide, managing approximately \$936 billion in assets, demonstrating the growing demand for integrated AI-driven solutions in the family office industry.

End of table 1

Platform (developer)	Key features and functionality
Total Return (SS&C GlobeOp)	<i>“Total Return consolidates complex partnership accounting and portfolio reporting in one platform.” – (user feedback).</i> Total Return is a time-tested back-office system designed for alternative investment funds and family offices. Developed by GlobeOp (now a division of SS&C), it offers a complete set of tools for investment accounting: real-time portfolio management, multi-currency general ledger, accounting for complex financial instruments (derivatives, multi-tiered ownership structures), as well as partnership accounting for fund structures with income distribution between participants (LP/GP). The system automates fund valuation (NAV), commission calculation, profit allocation and detailed reporting for each partner or beneficiary. Total Return's architecture is built on a single database, eliminating the need for reconciliation between different modules and reducing operational risks. For family offices, this means the ability to keep accounts for multiple entities (family, trusts, funds) in an integrated environment where all transactions are linked and reflected consistently. Although Total Return does not have explicit AI components in its classic implementation (the system was created back in the 2000s), SS&C is now adding RPA and ML-based automation elements to its solutions. In particular, SS&C's Intelligent Automation can be connected to Total Return to accelerate manual processes such as initial data entry or transaction reconciliation (SS&C, 2023). The main strength of Total Return is its reliability and proven functionality: the platform has been chosen by many family offices and hedge funds that require high accounting accuracy and the ability to customise it to their own methodologies (SourceForge, 2025). Thanks to its scalable architecture, Total Return can be deployed on local servers or in the cloud, giving offices flexibility in their choice of infrastructure. Overall, it is a workhorse for the back office that integrates with front-office analytical tools, providing a solid foundation for the digital transformation of family office financial operations.

Technological innovations are radically changing the way family offices operate, making them more efficient, transparent and flexible. As can be seen from an analysis of leading platforms, modern solutions offer an integrated approach: consolidation of all family financial data in a single digital space, automation of routine processes (from information gathering to report generation) and flexible adaptation to the specific needs of each family.

It is worth noting that an increasing number of providers are incorporating AI elements into their products, such as algorithms for detecting anomalies in transactions, cash flow forecasting, or even chatbots for responding to user queries.

An important part of this transformation is the introduction of artificial intelligence and machine learning. Although these AI features are still in their infancy, they point to the industry's evolution towards 'smart' family offices. Artificial intelligence modules in family office platforms are already performing tasks that previously required significant human resources: automatic reading and entry of data from financial documents (e.g., Canoe, Mastro), error and anomaly detection (Addepar, Advent), assisting in decision-making through predictive analytics, and even responding to user queries in a dialogue mode (Eton AtlasFive). Artificial intelligence expands the capabilities of the family office team, allowing it to focus on strategic capital management issues rather than technical data processing.

Thus, combining tools for financial reporting automation, portfolio analysis, and asset aggregation with artificial intelligence creates the foundation for transforming the family office's operating model, improving control, flexibility and customer service quality.

The choice of software depends on the size of the family office, its geographical location, the complexity of its needs and its budget.

Towards intelligent Family Offices: opportunities, barriers, and unmet needs.

Increased efficiency. When implemented wisely, digital technologies can dramatically improve the efficiency of family office operations. Automating routine tasks (data collection, reconciliation, reporting) frees up skilled staff time for more strategic work, such as investment analysis, searching for new opportunities, and working with the family. As noted, the savings can be measured in tens of person-hours per month. In addition to direct productivity gains, the quality of decisions improves: up-to-date consolidated data allows for faster, more informed decisions and avoids mistakes due to incomplete information. Equally important is the reduction of operational risks: digital systems reduce dependence on individuals and the 'human factor' ensure data backup and access control. This is especially critical for family offices with a small team, where the loss of a key employee or a mistake could have serious consequences.

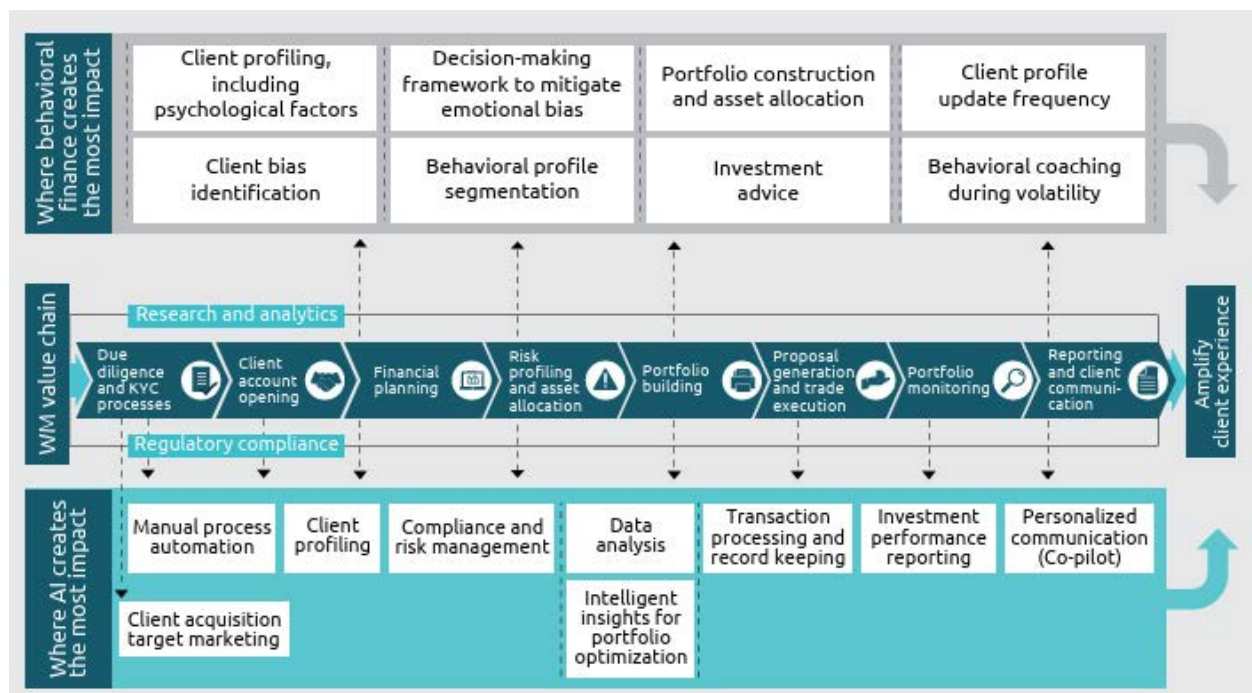


Figure 1
AI and Behavioural Finance Impact across the Wealth Management Value Chain

Source: Capgemini. (2024). *World Wealth Report 2024: Intelligent strategies for winning with the ultra-wealthy – Bridge wealth management and family office strengths to fuel growth*. Capgemini Research Institute. Retrieved from <https://www.capgemini.com/insights/research-library/world-wealth-report-2024/>

The framework proposed in the World Wealth Report 2024 (Capgemini, 2024) demonstrates how the combination of artificial intelligence (AI) and behavioural finance tools can transform key stages of the value chain in wealth management. This approach is structured on three levels, reflecting both the operational sequence and areas of potential technological impact.

The **core level** represents the traditional sequence of operations in wealth management, from due diligence and account opening to financial planning, risk profiling, portfolio construction, investment proposals, asset monitoring, reporting and client communication. This introductory level provides the logic of the process, on which technological interventions are superimposed.

The **top level** illustrates the stages where AI has the most significant impact. This primarily involves psychological profiling of clients, identification of behavioural biases, segmentation of cli-

ents according to their emotional and rational behaviour patterns, formulation of recommendations for decision-making and portfolio construction, as well as dynamic updating of client profiles and provision of personalised support during market turbulence. These tools enhance the customer experience by enabling the creation of highly accurate, contextualised solutions.

The **lower tier** demonstrates the added value provided by behavioural finance. Key areas include automation of manual operations, personalised customer targeting, compliance and risk management, data analytics and insight generation for investment portfolio optimisation. Communication tools also play an important role, particularly co-pilot-style interaction formats that encourage deeper customer involvement in the decision-making process.

Thus, the model outlines not only the technological but also the strategic potential of integrating AI and behavioural finance into family office practices, with an emphasis on personalisation, transparency, regulatory compliance and improved wealth management efficiency.

Cost and barriers to implementation. It should be acknowledged that the transition to new technologies is not without challenges. Responses from respondents in the aforementioned surveys indicate caution and apprehension among family offices regarding new solutions. This is partly due to security concerns (will confidential financial data be secure in the cloud?) and partly due to the lack of an 'ideal' product on the market designed specifically for the needs of family offices (Battaglia Trovato, 2025). Many platforms were initially designed for other target audiences (banks, funds) and only adapted for family offices, so users encountered fragmented functions, complex configuration, and slow onboarding (Battaglia Trovato, 2025). However, the situation is changing: new start-ups (such as Asora, Landytech, etc.) are entering the market with a focus on family offices, and large players (EY, Northern Trust, BNY Mellon) are building or offering entire ecosystems for their UHNW clients.

Financial considerations are also holding some offices back: the cost of implementing a comprehensive platform can be significant, especially for smaller single-family offices. In addition to licence fees, the costs of data migration, staff training and possible customisation must be taken into account. This is where platform-as-a-service models and the gradual introduction of modules come in handy, as well as the cost-effectiveness of scaling: multi-family offices can spread the costs across many families. It should be noted that technology costs are increasingly seen as an investment rather than an expense: preserving wealth across generations requires institutionalising processes, and technology is an integral part of this process. As one expert figuratively put it, 'digitisation is the glue that binds the wealth of different generations together,' without which the modern family office will be unable to survive generational change or withstand the challenges of the times (Battaglia Trovato, 2025).

The impact of AI and analytics. The role of artificial intelligence and machine learning deserves separate discussion. Although the actual use of AI by family offices is still limited (as we have seen, 10–12% are actively trying these solutions (Gooch, 2024) (Stover, Fankhauser & McKibbin, 2024)), the prospects look promising. Shortly, the most valuable solutions will be those based on 'narrow AI': algorithms for predicting financial indicators, systems for detecting anomalous transactions or fraud, and intelligent compliance assistants (e.g., monitoring compliance with regulatory requirements and sanctions lists for counterparties). In addition, there is growing interest in the use of generative AI for processing text information: family offices are drowning in streams of analytical reports, news, legal documents, and here AI assistants can take on preliminary analysis, summary preparation, or even the drafting of reports for clients. As noted in a Morgan Stanley study, there are already tools that use AI to read financial reports and automatically update portfolio data, saving analysts time (Morgan Stanley, 2025). Such capabilities are still viewed with caution, but the positive experience of early adopters (such as the CIO of a Florida family office, who noted significant time savings thanks to AI reporting tools (Asseta HQ, 2024)) will encourage wider adoption.

It is also important to emphasise that automation does not replace the human factor, but enhances it. Family offices are not just about numbers, but also about trust, family values and a personalised

approach. Therefore, technological transformation must be balanced: routine processes are automated, but the family continues to receive personalised service and attention. According to experts, the successful offices of the future will be those that manage to combine technological innovation with human expertise in reporting (Asseta HQ, 2024). The family office environment will not promote the maximum replacement of people by machines, but rather an increase in the 'intelligence quotient' of each employee through AI-based tools. For example, young professionals will be able to learn and make decisions faster with AI-generated analytics at their fingertips. At the same time, managers will be able to focus on strategic issues by relying on automated alerts about deviations or opportunities.

Unfilled niches and opportunities for innovation. Based on the analysis, several areas can be identified where demand from family offices exceeds current market supply (i.e., there are niches for the development of innovative services):

- *Automated information monitoring* – from financial news to legal changes that may affect family assets. Currently, offices rely on manual news reviews or third-party advisors; AI systems could monitor relevant events 24/7 and send alerts (especially important for risk management and reputation protection).

- *ESG data and planning* – as mentioned, tools for assessing the impact of investments on the environment and society. Possibilities include automatic compilation of an ESG profile for the portfolio, tracking the carbon footprint, checking companies for compliance with sustainability criteria, and generating proposals for improving the ESG performance of the portfolio.

- *Integration with family business systems* – further development of CRM/ERP integration ideas. For example, suppose a family owns an operating business. In that case, the family office can receive key business metrics (EBITDA, cash flows) in real time in its wealth management system to make decisions with this context in mind.

- *Personalised learning and generational continuity* – digital platforms for educating the next generation of family members in financial literacy, family business history and values. Some offices are already experimenting with private 'family portals' or even interactive social media-style learning modules (Battaglia Trovato, 2025). This is a promising niche at the intersection of technology and the soft skills required by family offices.

- *Cybersecurity and privacy* – given the growth of cyber threats, solutions tailored to family offices (e.g., darknet monitoring for family data leaks, secure messengers for intra-family communication, etc.) have great potential. Surveys show that information security has become a top priority alongside investment risks (Stover, Fankhauser & McKibbin, 2024), so innovative offerings are also to be expected here.

Conclusions. Digital technologies, including AI and ML, are playing an increasingly crucial role in improving the efficiency of family offices. Global research for 2024–2025 confirms that most family offices have recognised the need for digital transformation and are actively investing in technology to catch up (Gooch, 2024). The implementation of modern platforms is already yielding tangible results: reduced operational complexity, faster access to consolidated information, improved risk control and regulatory compliance. Although the penetration rate of AI/ML is still low, the first cases demonstrate their usefulness in specialised tasks, from reporting automation to investment analysis (Asseta HQ, 2024). Shortly, we can expect to see more rapid growth in the use of AI solutions in family offices as the technology matures and competition drives innovation. At the same time, it is important to emphasise that digitalisation is not an end in itself, but a tool: its success is measured by how well it helps to preserve and grow family capital, ensure generational continuity and flexibility in the face of new challenges.

The promise of AI/ML solutions is directly supported by market demand. As the study showed, family offices themselves point to problem areas (excessive manual work, lack of analytics, risks without IT) and are ready to invest in solving them. Some technologies – cloud services, mobile

platforms, basic analytics – have already become standard in the industry (Gooch, 2024). The next wave is likely to be associated with the spread of more 'advanced' solutions: AI algorithms that act as 'digital employees' of the family office, as well as ecosystem platforms that connect various aspects of wealth management (investments, business finance, family education, philanthropy). The outlook for technology providers is also attractive: the family office market is growing as new wealth emerges and existing dynasties branch out, so demand for innovative B2B solutions in this segment will increase.

The integration of personalised AI-based strategies into capital management is transforming the financial advisory paradigm. The implementation of such solutions not only increases customer satisfaction but also contributes to the growth of assets under management and improved customer engagement. Effective implementation of these approaches requires a balance between algorithmic efficiency and interpersonal interaction, data transparency, proper change management, and consultant training. Further technological developments, including federated learning and quantum computing, are opening up new opportunities for scaling personalisation, especially in segments with insufficient coverage by traditional financial services. AI-driven personalisation is thus becoming a key competitive advantage, enabling deeper customer engagement, improving service efficiency and adapting to changing expectations for financial support (Bandi, 2025).

In summary, a modern family office that wants to 'survive and thrive' in the 21st century must evolve into a technologically savvy, flexible organisation. This means investing not only in stocks and bonds but also in digital infrastructure and intelligent systems that will become the foundation for successful family capital management for generations to come.

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