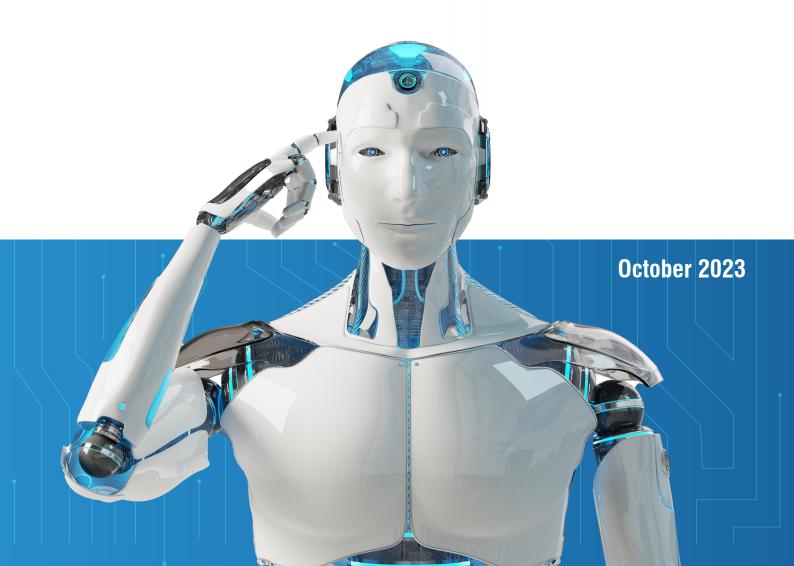


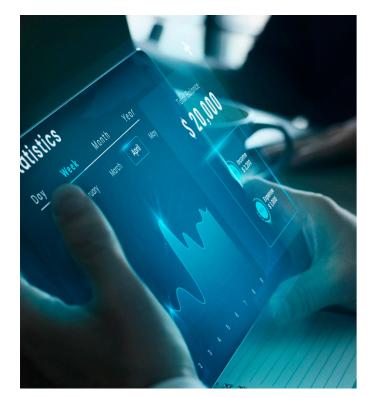
Fintech:

Robo Advisory's Impact & Innovations



Growth by Innovation Riyadh Valley Co. A Quality Shift towards the Future





Introduction

In today's rapidly evolving financial landscape, technology and wealth management convergence have given rise to a transformative phenomenon known as Robo-advisory. This digital disruption offers automated, algorithm-driven financial planning and investment services, often with minimal human intervention.

The evolution of Robo-advisors can be divided into four distinct stages, each representing a progression toward greater sophistication and personalization. In Robo Advisors 1.0, clients received proposals based on questionnaires. Robo Advisors 2.0 introduced fund portfolios and human oversight. Robo Advisors 3.0 utilized algorithms for decisions and personalization.

Robo Advisors 4.0 employ advanced Al algorithms for dynamic investments. Noteworthy within this landscape is the emergence of Hybrid-Robo-Advisory a fusion of traditional advisory services and technological innovation. This hybrid approach combines digital tools for portfolio optimization and asset allocation, presenting a harmonious blend of human expertise and machine-driven efficiency.

The global Robo-Advisory market is on a steady growth trajectory, with projected assets under management (AuM) set to reach USD 2.76 trillion in 2023. This trend is expected to continue, with a 13.99% annual growth rate from 2023 to 2027, potentially reaching USD 4.66 trillion AuM by 2027. Key trends shaping the industry include Artificial Intelligence (AI) and Machine Learning (ML) enhancements for personalized advice, hybrid models blending human and digital aspects, addressing social and ethical investing demands, gamification for interactive education, and personalized services catering to individual needs.

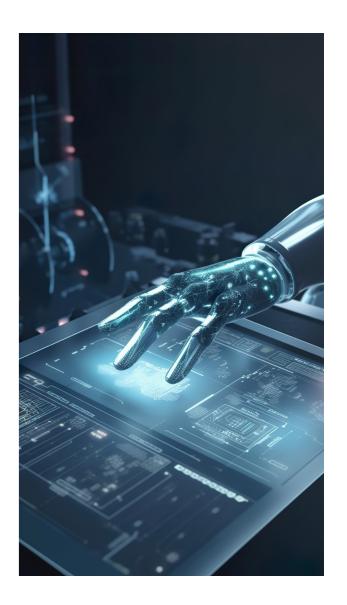
The Middle East and North Africa (MENA) region is no exception to this transformative wave. Here, the adoption of Robo-advisors and digital-only wealth management solutions is rapidly reshaping the wealth management industry. The examination of independent financial advisors and wealth managers in the MENA region, overseeing a combined USD 290 billion in assets, indicated that around 34% of them foresee a noteworthy increase in digital-only solutions by 2025. This projected growth is attributed to the pandemic's impact on technology adoption in the region, driven by the need for companies to adapt due to lockdowns and constraints.

Recent advancements in AI and Machine Learning have transformed personalized wealth management through the widespread adoption of Robo advisors. Not only fintech startups but also established corporate banks are embracing these automated systems due to their cost-effectiveness and scalability. This trend is fueled by increased accessibility to financial services, making Robo advisors the preferred choice for individuals with limited investment knowledge and resources.

Overview of Robo advisory market

Robo advisory is an online portfolio management solution that aims to efficiently allocate client assets by automating advisory processes. Robo Advisor provides automated, algorithm-driven financial planning and investment services without human supervision. Promoting independent financial management, Robo-advisors offer information in a novel way that doesn't necessitate an in-depth financial background.

According to WIPRO, Robo-advisory firms operate using four primary business models, each distinguished by their approach to customer interaction, integration within the banking parent to provide allied services and distribution models. These models aim to cater to various segments by providing tailored solutions for investors and established asset and wealth management firms, which utilize Robo-advisory platforms to enhance their digital advisory capabilities. While some Robo-advisors began as stand-alone entities, many have evolved by collaborating with financial institutions, expanding their product range to include offerings like Retirement and CDs (Certificate of Deposits), and forming partnerships with RIAs (Registered Investment Advisors) to deliver investment advice.



Robo-advisory business models





Stand-alone Robo-Advisor

These Robo-advisors operate independently from any specific financial product in the market. They are prohibited from receiving any incentives to promote particular products. This model allows them to provide impartial advice in accordance with regulations like MiFID II¹. Examples of stand-alone Robo-advisors include Wealthfront and Betterment.



Segregated Robo-Advisor

In this setup, Robo-advisory is offered as a separate service that can function on its own, either independently from its parent company or collaboratively with it. This approach allows clients to choose specific offerings tailored to their needs.



Robo for Advisor

This type of Robo-advisor is designed for use by wealth and asset management advisors. It complements the human advisor's expertise and serves as a distribution channel for Robo-advisory services. An example of this is Betterment for Advisor.



Fully Integrated Robo-Advisor²

A fully integrated Robo-advisor is tightly integrated into a bank's business model. The clients of the Robo-advisor are considered clients of the bank as well. This type of Robo-advisor is not an independent entity and only operates within the bank's suite of services. Examples of fully integrated Robo-advisors are Schwab Intelligent Portfolios and Vanguard Personal Advisory Service.

Source: Wipro; Note: 1. Markets in Financial Instruments Directive 2014, commonly known as MiFID 2, is a legal act of the European Union.

2. According to WIPRO, Fully Integrated Model applies to Banking business only

The evolution of Robo-advisors can be summarized into four stages. In Robo Advisors 1.0, clients receive investment proposals based on questionnaires, managing their portfolios independently without execution support. In Robo Advisors 2.0, investment portfolios are created as funds of funds, with investment managers overseeing asset allocation. Questionnaires are used to filter products and assign clients to predefined risk portfolios. Realization is semi-automatic, as managers oversee algorithms and rule sets. Robo Advisors 3.0 employs algorithms for investment decisions and portfolio rebalancing according to predefined strategies, where fund managers provide final oversight. Some services allow clients to customize their portfolios by either accepting or rejecting suggested changes to their investment strategies. Robo Advisors 4.0 utilizes advanced AI algorithms and intricate risk management for direct investments, dynamically adjusting portfolios to evolving market conditions and individual preferences. These Robo-advisor capabilities encompass diverse technologies and approaches, ranging from investment theory KPIs to market trend-driven automated rebalancing. Notably, the rise of Hybrid-Robo-Advice combines digital tools for portfolio optimization and asset allocation, indicating a growing convergence of traditional advisory services and technological innovation. In 2021, hybrid Robo-advisors held a prominent position in the market, capturing a substantial 64% market share and generating approximately USD2.64 billion in market revenue.

Robo-Advisory evolution - Digital Wealth Management from stages 1.0 to 4.0

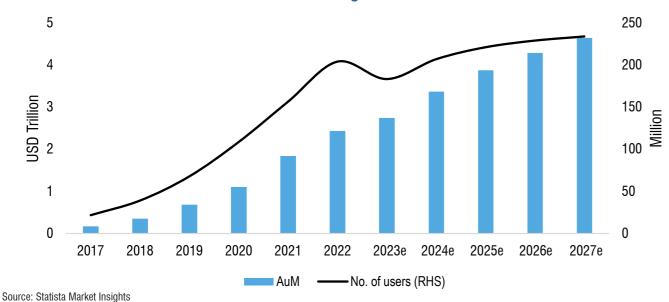
1.0 [Traditional]	2.0 [Traditional]	3.0 [Hybrid]	4.0 [Complete Automation]
 Online questionnaire Product or portfolio proposal Listed ETFs, bonds, shares 	 Dedicated fund management Managed adjustments & rebalancing Funds of funds & portfolio view Risk-based portfolio allocation (Traditional clients who value consistent support from human financial advisors) 	 Algorithm based adjustments & rebalancing proposals Pre-defined investment rule-sets (Sophisticated digital clients who favour occasional conversations with human financial advisors) 	 Fully-automated investments Self-learning algorithms Automatic asset shifts (Millennials and digital-savvy clients who prefer a fully automated solution)

Source: Deloitte

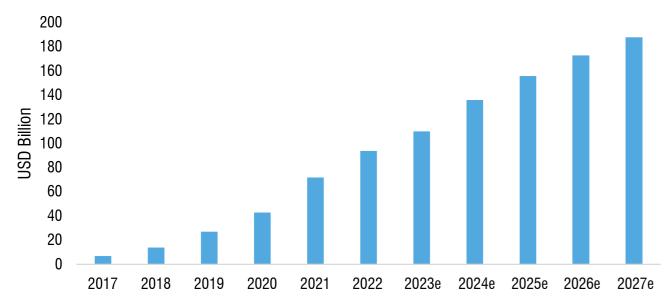
The Robo-Advisors market has been experiencing a notable upward trend, with projected assets under management reaching about USD 3 trillion in 2023. This growth is expected to continue, with an annual growth rate of approximately 13.99% from 2023 to 2027. As a result, the projected assets under management are set to reach around USD 5 trillion by 2027. The number of users in the Robo-Advisors market is also anticipated to increase, reaching about 234.3 million users by 2027. In a global comparison, the United States stands out with the highest assets under management, reaching a total of USD 1,172 billion in 2023.

Unleashing Fintech Potential: Robo Advisory's Impact and Innovations

Worldwide Robo-Advisors - Assets under Management



Worldwide Robo-Advisors - Revenue



Source: Statista Market Insights

Robo-advisors are poised to bring significant changes to the financial landscape, but their path to success is marked by several hurdles. These digital platforms must address six key challenges to establish themselves as successful financial enterprises.

Six challenges for Robo-advisors



Changing Perceptions of Financial Advice

- Perception of self-interest and greed in finance.
- Scandals erode trust in financial industry.
- Difficulty justifying the value of financial advice.



Establishing Trust

- Importance of trust in financial planning.
- · Low trust levels in the industry.
- Trust-building factors: competence, reliability, honesty, transparency.



Advice and Guidance Gaps

- "Advice gaps" due to low assets or reluctance to pay fees.
- Potential for Robo-advisors to democratize financial advice.
- Balancing scalability with profitability.



Economic Influences

- Wealth concentration in upper economic groups.
- Focus on budgeting tools for lower economic groups.



Cost of Acquiring Clients

- · Strategic failure of overlooking acquisition costs.
- High costs of prospect conversion and attrition.
- · Importance of marketing and advertising.



Behavioral Biases

- Present-day bias hampers long-term financial planning.
- Robo-advisors potential to visualize future outcomes.

Source: Firstlinks, a Morningstar company

Overcoming these obstacles necessitates creative solutions and adaptable strategies, allowing Robo-advisors to distinguish themselves and flourish in the ever-evolving financial sector.



Pros and Cons of Robo-Advisors PROS CONS Addressing large underserved Lack Personalization as market with low fees and no financial advice providers. minimum account balance requirement. Keeping the algorithm up-to-date with changing environment & **Unbiased** offerings and detailed need for more robust modelling. level of reporting. **Cannot handhold investors** during downturns as can the **Convenience and accessibility** traditional model with human through digital application. intervention.

Source: Wipro

Global Trends in Robo Advisory

The Global Robo-Advisory market is experiencing steady growth, with projected assets under management reaching around USD 2.76 trillion in 2023. This growth trend is expected to continue, showing an annual growth rate of 13.99% from 2023 to 2027, potentially reaching an AuM size of USD 4.66 trillion by 2027.

The Robo-advisory space is constantly evolving, and new trends are emerging all the time. The five trends discussed below are some of the most important ones to watch in the coming years. These trends are being driven by a number of factors, including technological advances, changing investor preferences, and regulatory developments. Robo-advisory service providers who are able to embrace these trends and adapt their offerings accordingly will be well-positioned to succeed in the future.



Emerging trends in the Robo-advisory space

Trend	Description	Impact on Advice and Services		
AI and ML Enhancement	Utilizing AI and ML technologies to improve advice quality and accuracy.	Provides personalized and customized advice, accurate risk assessments, and timely insights based on data analysis.		
Hybrid Models	Integrating human and digital elements for a balanced approach.	Offers emotional support and trust, allowing access to human advisors alongside automated solutions, catering to diverse investor preferences.		
Social & Ethical Investing	Responding to the demand for environmental and social impact awareness in investments.	Enables customization of portfolios based on ESG/SRI preferences, aligning investments with personal values.		
Gamification & Education	Engaging and empowering investors through interactive learning experiences.	Makes investing more accessible, especially for younger and less experienced investors, enhancing financial literacy.		
Personalization & Customization	Tailoring platforms and services to meet individual needs.	Differentiates Robo-advisors, attracting customers seeking unique and autonomous solutions.		

Source: Zachary Green, LinkedIn

Top-10 Robo-Advisors by Assets under Management

Robo-Advisor	AuM	Individual Clients	Platform Type	Minimum Investment	Fee
Vanguard Robo-Advisors	\$206.6 billion	1.1 million	Hybrid/ Pure Robo	\$3,000 (Pure) / \$50,000 (Hybrid)	0.15% (Pure) / 0.30% (Hybrid) (% of AuM)
Schwab Intelligent Portfolios	\$65.8 billion	262,000	Hybrid/ Pure Robo	\$5,000 (Pure) / \$25,000 (Hybrid)	\$0 (Pure) \$30/month + \$300 planning fee (Hybrid)
Betterment	\$26.8 billion	615,000	Hybrid/ Pure Robo	None (Pure) / \$100,000 (Hybrid)	0.25% (Pure) / 0.40% (Hybrid) (% of AuM)
Wealthfront	\$21.4 billion	307,000	Pure Robo	\$500	0.25% of AuM
Personal Capital Advisors	\$16.1 billion	26,000	Hybrid	\$100,000	0.89% of AuM (decreasing with higher assets)
Blooom	\$5.0 billion	24,000	Retirement Account Manager	Varies (\$45 - \$250/year)	Varies
Acorns	\$4.7 billion	4.4 million	Investment App	None	\$1 - \$5/month
M1 Finance	\$3.9 billion	9,000	Hybrid/ Pure Robo	\$100	Free (Pure) / \$125/year (Hybrid)
FutureAdvisor by BlackRock	\$1.8 billion	24,000	Hybrid/Free Robo	\$5,000 (Hybrid)	0.50% of AuM (Hybrid)
SigFig	\$1.42 billion	27,000	Investment Manager	\$2,000	No fee on first \$10,000; 0.25% of AuM thereafter

Source: Forbes, 2022

The deployment of Robo-advisors in fintech will offer effective financial advice and automate asset management, investments, and insurance claims processing. Traditionally, people seek guidance from financial planners for investments and major financial choices. However, these advisors can be biased, inaccurate, and costly. Robo-advisors offer cost-effective and precise asset allocation, estate planning, and financial advice compared to human advisors. These advisors employ predefined algorithms and market trends for wealth management.

Applications of Robo-Advisors in Fintech



Balance Projection

- Estimation of portfolio balance based on investment strategies.
- Visual presentation of projected balance curves for different strategies.

Tax Optimization

- Analysis of personal income and estate value for tax-saving strategies.
- Maximizing tax efficiency through suitable investments.

Estate Planning

- Simplification of complex estate planning processes.
- Evaluation of asset value and assistance in developing wills.
- Asset protection, disability, and terminal illness planning.

Customer Onboarding

- Automated data collection through detailed questionnaires.
- Deep learning analysis for personalized investment strategies.
- Customized portfolios creation and wealth management advice.

Asset Allocation

- Predefined algorithms for risk-based asset allocation.
- Rebalancing strategies based on changing investment proportions.

Insurance Simplification

- Personalized insurance policy suggestions through data analysis.
- Efficient processing of insurance claims, including refunds.

Retirement Planning

- Accurate estimation of retirement finances.
- Market trend analysis for optimal retirement investment approaches.

Source: BBN Times

While Robo-advisory offers convenience and cost-efficiency, investors should be aware of the potential risks involved. Finding a balance between automated advice and human oversight, along with maintaining a strong understanding of their investment strategies, can help mitigate these risks and make more informed financial decisions.

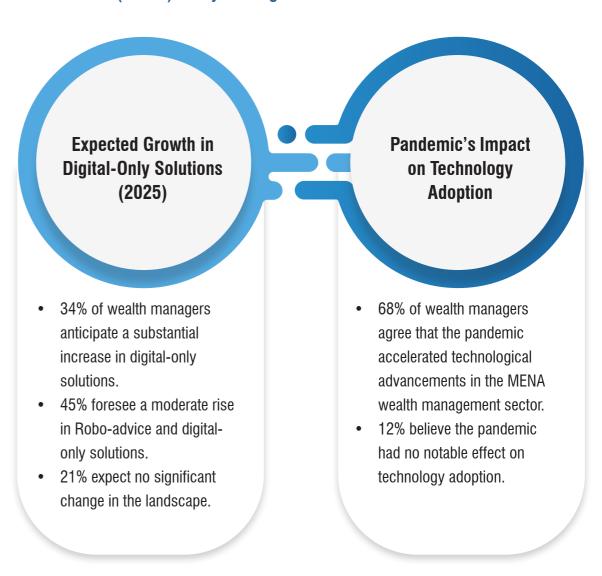
Potential risks for Robo-advising firms

- 1 Regulatory Risks -----
- · Robo-Advisor environment must incorporate new controls and verification to satisfy the fiduciary responsibility.
- For regulators, determining how to evaluate a software platform whose fiduciary responsibilities still ultimately reside with humans can be a challenge.
- Business Risks -----
- Moving clients from human-based experiences to technology-based experiences introduces risks such as low adoption and increased inquiries.
- The inability of the Robo-advisor to better capture a client's risk tolerance than a human financial advisor may lead to conflicts of interest based on fees.
- Operational Risks -----
- Firms need to establish adequate controls around their automated advisor environment to mitigate risks involving customer segmentation, business continuity planning, and IT governance.
- It is also important to guard against algorithms to enact steps not aligned with the client's best interests.
- 4 Technology Risks -----
- The **inability of the Robo-advisor platform** to adapt increasing business volumes or ineffective planning for added capacity may result in revenue and customer loss.
- If a firm plans to leverage a vendor Robo-advisor platform, it is important to recognize and manage risks that can arise from the vendors.
- 5 Client Expectations-----
- Institutions must maintain an environment in which every investor can expect a seamless, consistent experience, no matter how a transaction is handled or by whom. The client's risk profile and other particulars should inform each delivery channel in the same way.

Robo advisory in the Middle East

Wealth managers in the Middle East and North Africa (MENA) region are witnessing a significant shift in their industry, driven by the increasing adoption of Robo-advisors and digital-only wealth management solutions. This trend is highlighted by research (2022) conducted by Oxford Risk, a leading authority in behavioral finance.

Oxford Risk Research (MENA) - Key Findings



The impact of the pandemic, combined with innovative platforms like Sarwa, FinaMaze, and others, is driving increased adoption of technology-driven investment strategies, catering to a wide range of investors' preferences and needs.

Robo advisory platforms in Middle East



FinaMaze (UAE)

- Launched an Al-powered hybrid Robo-advisory solution for MENA.
- Uses AI to identify investors' financial behavior, risk appetite, and goals.
- Introduced new smart portfolio themes, including Cryptocurrency and Inflation Protection.



NBK Capital SmartWealth (Kuwait)

- Developed and launched by the National Bank of Kuwait.
- Offers tailored investment plans based on financial obligations and goals.
- Features various investment products, including global, thematic, and multiasset options.



CBD Investr (UAE)

- Launched by the Commercial Bank of Dubai and InvestSuite.
- Enables retail investors to start investing with a minimum of \$500.
- Offers customized portfolios of stocks, bonds, and other asset classes using low-cost ETFs.

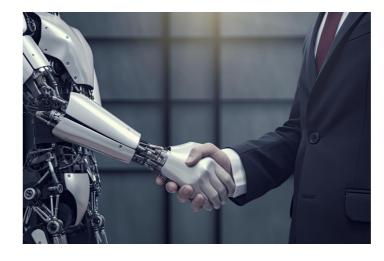


Source: fintechnews ae

Magnus (Turkey)

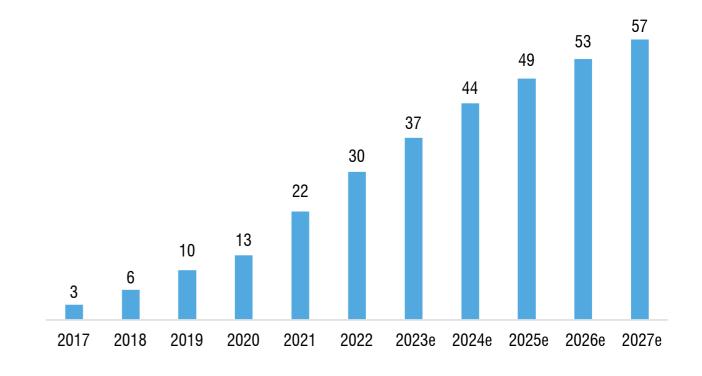
- Artificial Intelligent portfolio optimization and investment platform.
- · Provides personalized asset allocation and investment recommendations.
- Offers flexibility for individual investors, portfolio advisors, and larger banks.

Robo advisory in Saudi Arabia



Robo-advisor assets in Saudi Arabia are increasing, with a USD 37 billion assets under management in 2022, projected to reach USD 57 billion by 2027. Regulated by the Capital Market Authority (CMA), Robo-advisors require authorization to operate in the country.

Saudi Robo-Advisors - Assets under Management (in USD Billion)



Source: Statista Market Insights

In August 2019, Saudi CMA permitted Haseed Investing and Wahed Capital to test their Robo-advisory services. In January 2021, Sarwa, a Dubai-based technology start-up expanded its platform's services to Saudi Arabia after receiving approval from the CMA. But the big step came in September 2021, as Derayah Financial launched Derayah Smart, Saudi's first Robo-advisor for individual investors from a financial firm.

Robo advisors in Saudi Arabia



Derayah Smart

- Offers a hybrid Robo-advisory platform for retail investors.
- Provides globally diversified and multi-assets-based strategies.
- Combines automated investment objective definition with advisory teammanaged investments.



Haseed Invest

- Focuses on globally diversified Islamic assets using ETFs and mutual funds.
- Granted fintech permit by Saudi Arabia's Capital Markets Authority.
- Offers personalized investment portfolios based on smart risk assessment algorithm.



DirectFN Robo Advisory

- Received Financial Technology Experimental Permit in 2020.
- Provides automated advice on securities and investments.
- Offers online discretionary investment management.
- Minimum investment as low as 50 riyals (approx. 13 USD).
- Shariah-compliant for aligned investment growth.



أبيان المالية SABYAN CAPITAL

Madkhol

- In February 2023, permission of fintech experiment granted to Madkhol Company to test its Robo-advisory platform.
- Shariah-compliant platform.
- Robotic advisor monitors and rebalances portfolios.
- Assesses risk profile for personalized investment strategy.
- Focuses on education and raising awareness about investments.
- Subscription-based services, fees upon signing up.



Abyan Capital

- Authorized by CMA in 2022.
- Emphasizes transparency in operations, fees, and sectors.
- Focuses on long-term investment strategies.
- Sectors include real estate, stocks, and Shariah-compliant Sukuk.
- Minimum investment: 1,000 SAR (approx. 266 USD).
- 1% fee on managed investment, withdrawn/added anytime.



Malaa

- Received Experimental Permit in 2022.
- Free personal wealth management app.
- Centralizes expenditures from multiple bank accounts.
- · Creditworthiness assessed via financial behavior.
- Offers automated investing based on goals and budget.



Drahim Co

- Drahim is a Saudi FinTech company founded in August 2021, headquartered in Riyadh.
- Utilizing its AI engine, Drahim recommends personalized, low-risk autoinvestment plans in stocks based on the user's financial situation and habits.
- In May 2023, Saudi CMA granted permission of fintech experiment to Drahim co to test its Robo-advisory platform.

Source: LenderKit; fintechnews.ae; Refinitiv



Spotlight – Sarwa

Founded in 2017, Sarwa is a UAE-based robo-advisory wealth management firm that provides automated, algorithmdriven investment advisory services. Using advanced technology, the platform offers curated portfolios, including conventional, halal, and Bitcoin offerings, catering to various investor preferences. Sarwa was the first company to emerge from the Dubai Financial Services Authority's sandbox, showcasing its commitment to regulatory compliance and innovation. Sarwa is regulated by two authorities, including the Dubai Financial Services Authority (DFSA) and Abu Dhabi's Financial Services Regulatory Authority (FSRA).

Hambro Perks, a UK-based international investment firm focused on technology investing, announced the first closing of its Oryx Fund in February 2021. The Oryx Fund is a venture fund that supports early-stage startups across the MENA region, with a particular focus on Fintech, Healthtech, and Edtech. The Oryx Fund is based in the Abu Dhabi Global Market (ADGM) and has attracted investments from renowned regional and international investors, including Riyadh Valley Company. Oryx Fund, a USD50 million venture capital fund, participated in Sarwa's Series A funding round in January 2020. This investment signified confidence in Sarwa's business model and its potential to transform investment practices in the UAE. In August 2021, in a Series B round, Sarwa raised USD15 million, enabling the introduction of a zero-commission trading service in the UAE, making investing even more cost-effective.

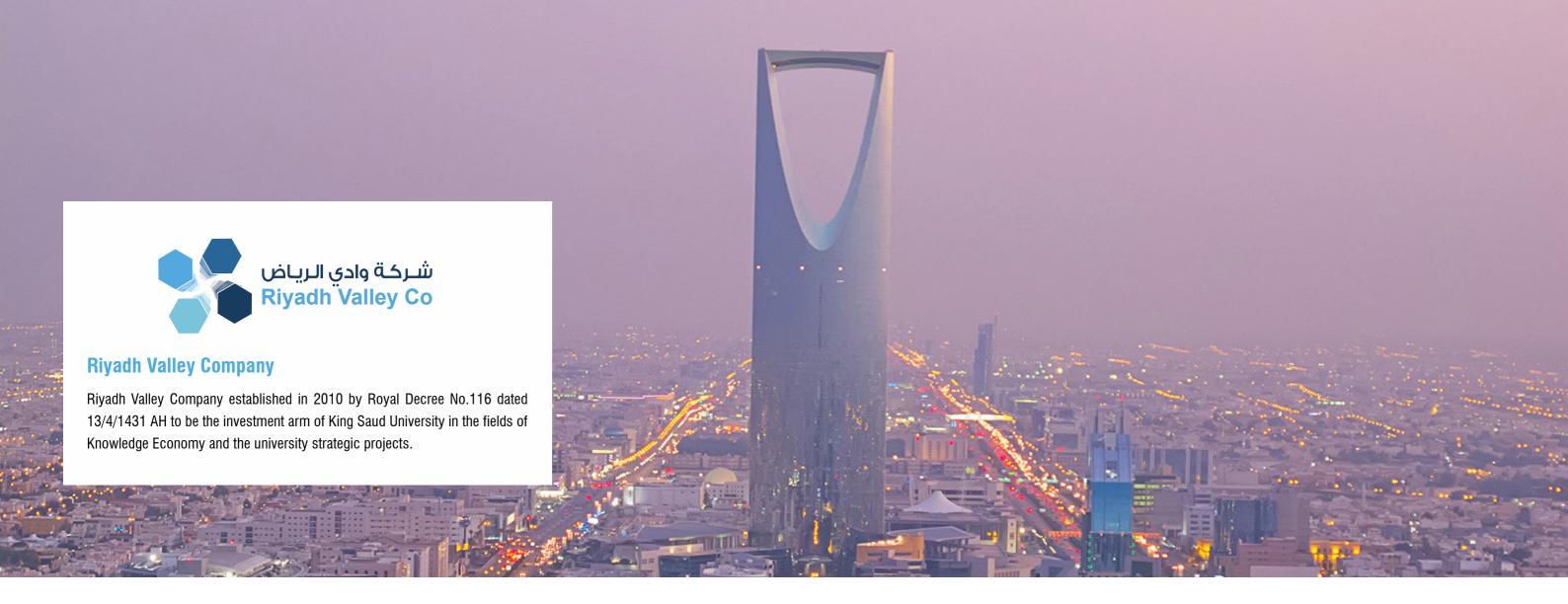


Conclusion

In recent years, the advancement of AI and Machine Learning has significantly revolutionized the landscape of personalized wealth management, primarily through the emergence and rapid adoption of Robo advisors. This transformation is not limited to innovative fintech startups; even established corporate banks are embracing Robo advisors due to their cost-effectiveness and scalability when compared to traditional human staff. This trend is driven by the growing accessibility to financial services, positioning Robo advisors as the optimal choice for individuals with limited investment expertise and resources.

Presently, mobile applications have emerged as the primary interface for a multitude of brokerages and trading platforms, reflecting the pervasive trend of a "mobile-first" approach within the fintech sector. An increasingly important feature in these applications is the seamless integration of Robo advisors, enabling companies to attract new clients, facilitate trading activities, and maximize profitability. The success of this integration hinges on a variety of factors, including the selection of robust technological frameworks and the design of intuitive user interfaces. The Robo-advisory market in Saudi Arabia is still in its early stages of development, but it has the potential to grow significantly in the coming years. The Saudi Arabian government and financial institutions are supportive of the development of the Robo-advisory market, and there are a number of factors that are likely to drive its growth, such as the increasing popularity of online investing, the growing number of young investors, and the rising cost of traditional financial advice.

In conclusion, the synergy between AI, Machine Learning, and Robo advisors is reshaping the landscape of personalized wealth management. The adoption of Robo advisors, evident across both fintech startups and established banks, underscores their efficiency and scalability in comparison to traditional approaches. As financial inclusivity broadens, Robo advisors have emerged as the preferred choice for individuals seeking accessible and knowledgeable investment solutions. The growing prevalence of mobile apps in financial interactions further emphasizes the importance of integrating user-friendly Robo advisors to enhance customer experience and drive business growth. Success in this arena is reliant upon strategic technological decisions and the creation of intuitive interfaces that empower users to make informed financial decisions.





Vision

To be the regional leader in knowledge-based investment and technology.



Mission

Riyadh Valley Company is a strategic investor, focused on leveraging the local capabilities, investing locally and globally in growth - stage businesses to create financial and strategic returns that will support the future of economic development in the Kingdom.

Investment Sectors:

Venture Capital Investments





Healthcare Investment



FinTech



Education



Information & Communication Technology



Logistics and Trasportation

Strategic Investments



Innovation and R&D Projects



Commercial Projects



Educational Projects



Residential Projects



Healthcare Projects

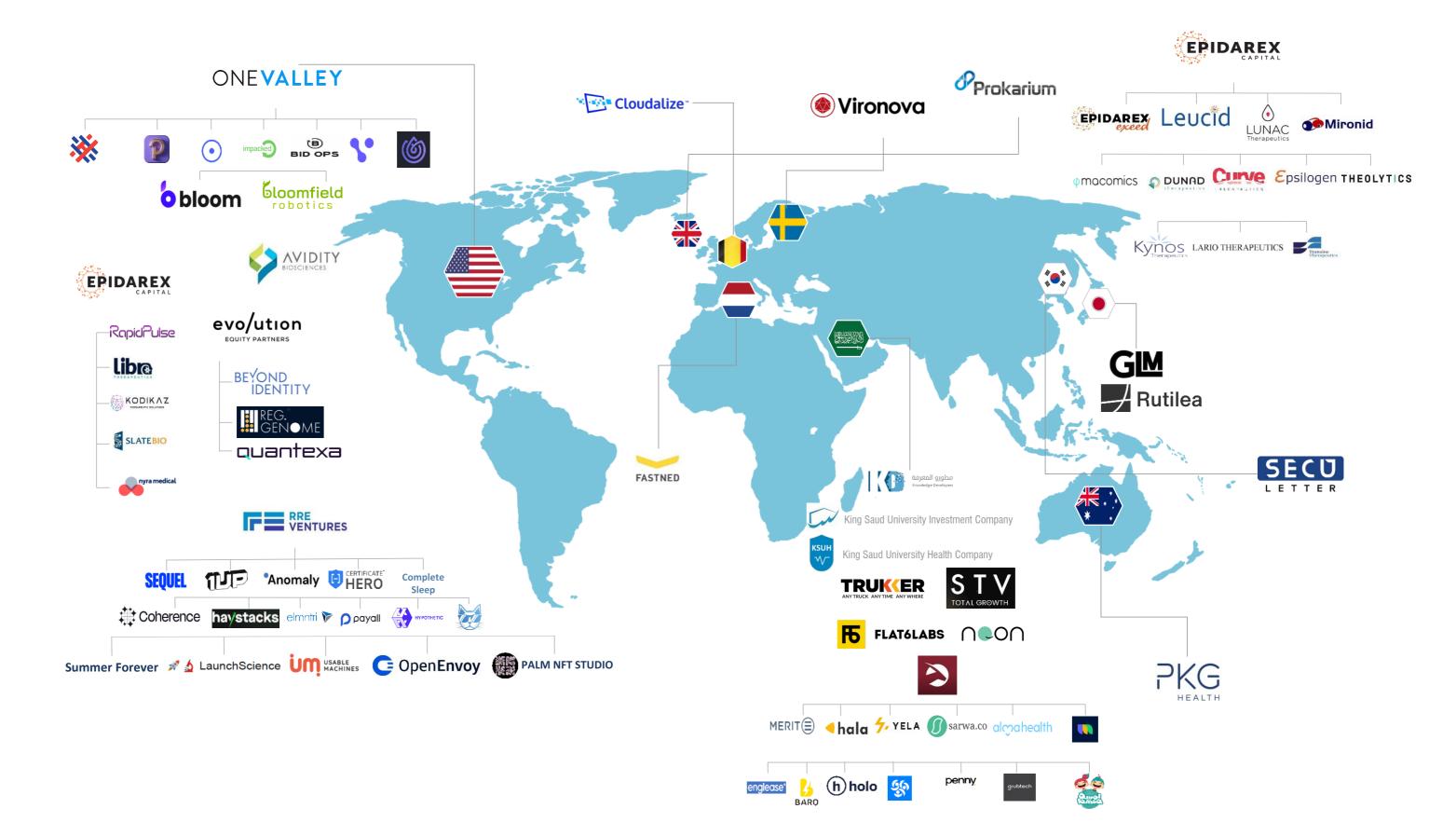


Mixed-use Projects



21

Knowledge Investment Portfolio



Strategic Investment Portfolio





Four Directions

Office project

(DRM)

Company Project

Company Project Research center and offices



Unleashing Fintech Potential: Robo Advisory's Impact and Innovations

مجد العـقارية Majd Real Estate

Majd Real Estate Company Project Offices project





City Lights Real Estate







عیادات دیرما Derma Clinic **Derma Clinic Company Project** Residential project



SAHAT

Sahat Al-Ardh **Company Project** Mixed-use project



Qasr Alaaredh Company Project



Takween Altanmia Company Project Offices project



NMR Real Estate Company Project Mixed-use project



Al-sorooh Al-**Mubarakah Company Project**

Offices project



ELM Information Security Company Project Research & Innovation center



Derma Clinic Company Project

Healthcare project



Four Directions Company Project Commercial project



سينومي _{cenomi} **U WALK Project** Commercial project



The Esplanade Project Commercial project



جامعة المعرفة **Almaarefa University Project**

Buliding project



Arrowad Education Company Project Educational project



Innovation Tower Project

Office building project



Obëkan Obëkan

Obeikan Company Project Commerial project



دور الکُتّـاب Dur Alkuttab

Dur Alkuttab Company Project Educational project



omnia auiol **Omnia Real Estate Development Company Project**

Commercial project