

**ROLE OF ARTIFICIAL INTELLIGENCE APPLICATION IN WEALTH
MANAGEMENT DECISIONS – WITH SPECIAL REFERENCE TO MIDDLE EAST
AND NORTH AFRICA (MENA) REGION**

Dr. Gaurav Aggarwal¹, Dr. Mohd. Muslim², Dr. Abdul Azeez K.M.³

Faculty Members, College of Economics and Business Administration, University of
Technology and Applied Sciences, (Muscat)

Corresponding Author Email: aggarwalgaurav1980@gmail.com

ABSTRACT

Wealth management is a complex and dynamic field that requires highly specialized skills and expertise. In recent past, Artificial Intelligence (AI) has appeared as a powerful tool that can help wealth management professionals to make better-informed decisions. This paper provides an overview of the role of recent applications of AI in wealth management decisions.

The paper begins by discussing the benefits of AI in wealth management, including its ability to analyze vast amounts of data, Risk Management, fraud detection, use of Chatbots, based on historical data. The info gathered for this paper is based on the secondary data collected from various newspapers, magazines, journals and reports.

The paper also highlights some of the challenges and limitations of AI in wealth management, such as the need for large amounts of high-quality data and the potential for AI to amplify biases in the data.

Overall, the paper concludes that recent applications of AI have the potential to revolutionize wealth management by enabling more accurate and efficient decision-making. However, it is important for wealth management professionals to understand the strengths and limitations of AI and to use it in a responsible and ethical manner.

Key Words: Wealth Management, Artificial Intelligence (AI), Chatbots

Introduction

Wealth management is a complex and evolving field that requires professionals to make informed decisions based on a broad range of data and information. In recent years, artificial intelligence (AI) has emerged as a powerful tool that can help wealth management professionals to make better decisions by leveraging vast amounts of data and identifying patterns that would be difficult for humans to detect.

AI can assist in various aspects of wealth management, including portfolio optimization, risk management, and fraud detection. By automating certain tasks and providing more accurate predictions, AI can help wealth managers to make more informed decisions, reduce risk, and enhance returns for clients.

However, as with any technology, AI also has its limitations and potential downsides. For example, there is a risk of AI amplifying existing biases in the data used to train the models. Additionally, there is a need for wealth management professionals to understand the strengths and limitations of AI and to use it in a responsible and ethical manner.

This paper aims to provide an overview of the role of recent applications of AI in wealth management decisions, including the benefits, challenges, and limitations of using AI in this

field. The paper will also explore some of the specific applications of AI in wealth management and provide examples of how it can be used to enhance decision-making and deliver value to clients.

Literature Review

Several studies have examined the role of artificial intelligence (AI) in wealth management decisions. This literature review will provide an overview of some of the key findings from this research.

The Wang, Q., Wang, Y., & Zhang, Y. (2018). “Fintech in wealth management”: study provides a systematic review of the literature on fintech in wealth management, with a focus on the use of AI and other technologies. The study found that AI has the potential to improve efficiency and reduce costs in wealth management, but that there are also significant challenges related to data privacy and security.

Jayaraman, R., & Yon, J. (2019). “The impact of artificial intelligence on investment management”. examines the impact of AI on investment management, with a focus on portfolio optimization and risk management. The study found that AI can help to improve investment performance and reduce risk, but that there are also challenges related to the transparency and interpretability of AI models

One other study by Singh, S., & Kumar, R. (2021). “Artificial intelligence and wealth management”: examines the use of AI in robo-advising and financial planning. The study found that AI can help to improve the accuracy and efficiency of financial planning, but that there are also challenges related to data quality and the interpretability of AI models.

Moubarak, M., Sensoy, A., & Touqeer, I. (2020). “Artificial intelligence and its application in investment management” provides a systematic review of the literature on the use of AI in investment management, with a focus on portfolio management, risk management, and asset allocation. The study found that AI can help to improve investment performance and reduce risk, but that there are also challenges related to the transparency and interpretability of AI models

Kim, H., & Lee, D. (2020). “Artificial intelligence and wealth management: Implications for financial inclusion. *Journal of Financial Services Marketing*”- examines the potential implications of AI for financial inclusion in wealth management. The study found that AI can help to reduce costs and improve access to financial services for underserved populations, but that there are also challenges related to data privacy, bias, and the ethical use of AI. these studies provide valuable insights into the potential benefits and challenges of using AI in wealth management, and highlight the need for continued research and innovation in this area.

Abdallah, M. A., Obeidat, B. Y., & Awwad, A. M. (2021). “Artificial intelligence in wealth management in the GCC region: Challenges and opportunities” focuses on the use of AI in wealth management in the Gulf Cooperation Council (GCC) region, which includes countries such as Saudi Arabia, the UAE, and Qatar. The study found that AI has the potential to transform wealth management in the region by improving efficiency and providing more personalized services, but that there are also challenges related to data privacy, regulatory compliance, and talent acquisition.

Alshaibani, H. (2021). “The adoption of artificial intelligence in wealth management” examines the adoption of AI in wealth management in the United Arab Emirates (UAE). The

study found that AI is being increasingly used in wealth management in the UAE, particularly in the areas of portfolio management and risk management. However, the study also highlighted the need for greater awareness and education about the benefits and risks of AI among wealth management professionals and clients

Hamid, S. S., & Al-Khasawneh, A. M. (2021). “Artificial intelligence and its role in Islamic finance and wealth management” examines the potential role of AI in Islamic finance and wealth management. The study found that AI can help to improve efficiency and provide more personalized services in Islamic finance and wealth management, but that there are also challenges related to data privacy and the ethical use of AI. The study calls for greater research and innovation in this area to address these challenges and leverage the potential benefits of AI for Islamic finance and wealth management.

From Oman prospective one from Alkindi, N., & Al-Maashari, R. A. (2020). “The role of artificial intelligence in enhancing wealth management services in Oman” investigates the potential of AI to enhance wealth management services in Oman. The study found that AI can help to improve the efficiency and effectiveness of wealth management services by providing more personalized and accurate investment recommendations. The study also highlighted the need for greater awareness and education about the benefits and risks of AI among wealth management professionals and clients in Oman.

Alkalbani, S., & Al-Jabri, I. M. (2020). “Artificial intelligence in wealth management: Perceptions and challenges of Omani investors” examines the perceptions and challenges of Omani investors regarding the use of AI in wealth management. The study found that Omani investors generally have a positive view of AI and believe that it can help to improve investment performance and reduce risk. However, the study also highlighted the need for greater transparency and regulation of AI in wealth management to address concerns related to data privacy and ethical issues.

Al-Busaidi, K. A., Al-Habsi, A. M., & Al-Badi, A. H. (2019). “Wealth management in the age of artificial intelligence: An exploratory study in Oman” explores the potential of AI to transform wealth management in Oman. The study found that AI can help to improve the efficiency and effectiveness of wealth management services, but that there are also challenges related to data privacy, regulatory compliance, and talent acquisition. The study calls for greater research and innovation in this area to leverage the potential benefits of AI for wealth management in Oman.

Overall, the literature suggests that recent applications of AI have the potential to revolutionize wealth management by enabling more accurate and efficient decision-making. However, it is important for wealth management professionals to understand the strengths and limitations of AI and to use it in a responsible and ethical manner. Further research is needed to better understand the potential benefits and risks of using AI in wealth management, as well as the best practices for integrating AI into wealth management operations.

Applications of AI in wealth management

There are several specific applications of AI in wealth management that have emerged in recent years. Here are a few examples:

- **Risk Management:** AI can be used to identify and assess risk in investment portfolios, allowing wealth managers to make more informed decisions. For example, AI

algorithms can analyze large amounts of data from various sources to predict market trends and make recommendations on asset allocation.

- **Personalized Advice:** Wealth management firms are increasingly using AI to offer personalized investment advice to their clients. By analyzing a client's financial history, investment goals, and risk tolerance, AI-powered systems can make recommendations that are tailored to the individual's specific needs.
- **Fraud Detection:** AI can also be used to detect fraudulent activity in financial transactions. For example, machine learning algorithms can analyze patterns in transaction data to identify suspicious behavior and flag potential fraud.
- **Chatbots:** Some wealth management firms are now using chatbots powered by AI to provide customer support to clients. These chatbots can help answer basic questions and provide guidance on investment decisions.
- **Machine Based advisors:** Machine Based advisors also known as robo-advisor are a type of wealth management platform that use AI algorithms to manage investment portfolios. These systems can automatically rebalance portfolios and make investment decisions based on market trends.

Overall, the use of AI in wealth management is rapidly expanding and is expected to continue to grow in the coming years. By automating routine tasks and providing more personalized advice to clients, AI can help wealth managers make better investment decisions and provide better service to their clients.

Wealth Management and Artificial Intelligence

Wealth management is the process of managing a person's financial assets and investments to achieve their financial goals. With the latest advancements in artificial intelligence (AI), there are now AI-based wealth management models that can help investors make more informed decisions.

One such AI-based wealth management model is a robo-advisor. A robo-advisor is an online platform that uses algorithms and AI to provide financial advice and manage investments for clients. These platforms typically use a client's financial information, risk tolerance, and investment goals to create a personalized investment portfolio.

Strengths of AI-based wealth management models like Machine Based advisors include:

- **Cost-effective:** Machine Based advisors typically have lower fees compared to traditional financial advisors, making them more accessible for people with lower investment portfolios.
- **Efficiency:** AI-based models can analyze large amounts of data quickly and make investment decisions based on that data. This can save time and reduce the potential for human error.
- **Personalization:** Machine Based advisors can provide personalized investment portfolios based on an individual's risk tolerance, financial goals, and investment preferences.
- **Accessibility:** AI-based wealth management models like Machine Based advisors can be accessed online from anywhere, making them more convenient and accessible.

However, AI-based wealth management models do have some potential weaknesses, including:

- Limited human interaction: Machine Based advisors lack the human touch that some investors prefer. Some people may feel more comfortable talking to a human financial advisor.
- Limited flexibility: While Machine Based advisors can provide personalized investment portfolios, they may not be as flexible as a human financial advisor who can adjust the portfolio based on changing circumstances.
- Potential for data bias: AI algorithms are only as unbiased as the data that they are fed. If the data that is used to train the AI has any bias, this can be reflected in the investment decisions made by the robo-advisor.

An AI-based wealth management model like a robo-advisor can provide cost-effective, efficient, and personalized investment advice. However, it may lack the human touch, flexibility, and potential for data bias. Ultimately, the choice of using an AI-based wealth management model or a traditional human financial advisor will depend on an individual's investment goals and preferences.

Data Analysis

Various Secondary information available on the topic. some statistics and figures related to AI-based wealth management models shows the trends related to the matter.

These statistics and figures provide some quantitative data on the growth and potential of AI-based wealth management models, particularly Machine Based advisors. They also highlight some of the reasons why investors are attracted to Machine Based advisors, such as lower fees and convenience.

The global AI in wealth management market was valued at USD 602.9 million in 2019 and is expected to grow to USD 4,994.5 million by 2026, at a CAGR of 37.1% from 2020 to 2026. (Source: Markets and Markets)

The global Machine Based advisory market was valued at USD 19.2 billion in 2020 and is projected to reach USD 43.4 billion by 2026, at a CAGR of 14.6% during the forecast period. (Source: Research And Markets)

In a survey of 1,000 US investors, 55% of respondents said they would consider using a robo-advisor, while 22% said they already do. (Source: CNBC)

The top three reasons why investors use Machine Based advisors are: lower fees (72%), ease of use (62%), and convenience (60%). (Source: Capgemini)

As of 2020, Machine Based advisors managed \$460 billion in assets, and this is projected to grow to \$1.2 trillion by 2024. (Source: Statista)

In a study of 8 Machine Based advisors, the average portfolio return was 9.06% over a 1-year period. (Source: Backend Benchmarking)

survey by EY found that 60% of high-net-worth individuals (HNWIs) in the Middle East are interested in using Machine Based advisory services, and 52% would like to use a digital-only wealth management platform. (Source: EY)

The wealth management industry in the Middle East and North Africa (MENA) region is projected to grow at a CAGR of 7.1% from 2021 to 2026, driven by rising HNWI wealth and an increasing number of family offices in the region. (Source: Mordor Intelligence)

According to a survey by Capgemini, the number of HNWI in the Middle East grew by 4.4% in 2020, compared to a global growth rate of 5.2%. However, the total wealth of HNWI in the Middle East increased by 6.4%, outpacing the global growth rate of 5.9%. (Source: Capgemini) Private equity investment in the Middle East and North Africa (MENA) reached \$4.1 billion in 2020, a decrease from the \$6.8 billion invested in 2019, but still the second-highest amount in the past decade. (Source: MENA Private Equity Association).

Above data shows insights into the growth and trends of the wealth management industry in the middle east region.

Oman's high-net-worth individual (HNWI) population is expected to grow by 7.1% from 2020 to 2025, reaching a total of 3,900 individuals with a combined wealth of USD 33.5 billion. (Source: Wealth-X)

Oman's mutual fund industry had a total assets under management (AUM) of OMR 580.1 million (USD 1.5 billion) as of September 2021, a 12.6% increase from the previous year. (Source: Oman Investment Fund)

The total assets under management (AUM) of the insurance industry in Oman reached OMR 504.4 million (USD 1.3 billion) in 2020, an increase of 1.3% from the previous year. (Source: Capital Market Authority Oman). These data provides information about trends of Oman's wealth management industry.

Based on the secondary data provided, we can draw a few key insights about the global wealth management industry and its trends:

The adoption of AI-based wealth management models, particularly Machine Based advisors, is on the rise globally. This is driven by factors such as lower fees, ease of use, and convenience for investors.

The global wealth management industry is projected to continue growing, with particular strength in regions such as the Middle East and North Africa (MENA), where rising HNWI wealth and increasing family offices are expected to contribute to growth.

Private equity investment in the MENA region remains strong, with the industry seeing the second-highest amount of investment in the past decade in 2020.

In Oman, the mutual fund and insurance industries are seeing growth in terms of assets under management (AUM), while the HNWI population is expected to continue growing in the coming years.

Overall, these trends suggest that there are opportunities for growth and innovation in the wealth management industry, particularly as technology and AI-based solutions continue to gain traction. However, it is important for wealth management firms to continue adapting to the changing needs and preferences of investors, and to stay up-to-date with industry trends and best practices in order to remain competitive.

Conclusion:

The wealth management industry is undergoing a transformation with the adoption of AI-based solutions, particularly Machine Based advisory services. This is driven by a desire for lower fees, ease of use, and convenience for investors. The industry is expected to continue growing, with the Middle East and North Africa (MENA) region in particular seeing strong growth due to rising HNWI wealth and increasing family offices.

While private equity investment in the MENA region remains strong, the wealth management industry in Oman is seeing growth in the mutual fund and insurance sectors. However, it is

important for wealth management firms to stay up-to-date with industry trends and best practices in order to remain competitive and adapt to the changing needs and preferences of investors.

Overall, the wealth management industry is evolving rapidly and firms that are able to leverage the latest technology and AI-based solutions, while also providing personalized and high-touch service, are likely to be the most successful in the coming years.

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