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AI DRIVEN PERSONAL FINANCE MANAGEMENT TOOLS – A REVIEW

[1]Sangeetha.S, [2]Sumi S.S, [3] Jayalekshmi S.R

[1]Assistant Professor, [2]Assistant Professor, [3]Assistant Professor
[1]Department of Tourism,
[1]Kerala Institute of Tourism and Travel Studies (KITTS), Thiruvananthapuram, India

Abstract : Artificial Intelligence (AI) has significantly transformed the financial technology (FinTech) landscape by introducing intelligent tools for managing personal finances. AI-driven personal finance management (PFM) tools help individuals monitor spending, automate budgeting, forecast financial behavior, and improve investment decisions. These tools use machine learning algorithms, predictive analytics, natural language processing, and big data to analyze financial patterns and provide personalized financial advice. The purpose of this study is to review the evolution, functions, benefits, and challenges of AI-driven personal finance management tools. The study relies on secondary data collected from academic journals, research articles, financial technology reports, and online databases. The findings show that AI-based PFM tools improve financial decision-making, increase financial awareness, and support automated financial planning. However, concerns regarding data privacy, algorithmic bias, and cybersecurity remain major challenges. The study concludes that AI-driven financial tools will play a significant role in the future of digital financial services and personal wealth management.

Index Terms **- Artificial Intelligence, Personal Finance Management, FinTech, Financial Technology, Machine Learning, Digital Banking..**

INTRODUCTION

The rapid advancement of financial technology (FinTech) has transformed the way individuals manage their finances. Traditionally, personal finance management involved manual budgeting, financial record keeping, and consultation with financial advisors. However, the integration of Artificial Intelligence (AI) into financial services has created innovative tools that automate financial planning and decision-making processes.

AI-driven Personal Finance Management (PFM) tools utilize advanced technologies such as machine learning, big data analytics, and natural language processing to analyze financial transactions and provide personalized recommendations. These tools can automatically track spending patterns, categorize expenses, predict future financial trends, and suggest investment opportunities.

In recent years, digital banking platforms and financial applications have widely adopted AI technologies to enhance customer experience. Applications such as intelligent budgeting assistants, robo-advisors, and automated savings platforms enable users to make informed financial decisions with minimal effort.

The increasing adoption of smartphones and digital payment systems has further accelerated the demand for AI-based personal finance tools. These tools not only simplify financial management but also promote financial literacy among individuals. Therefore, understanding the effectiveness and limitations of AI-driven PFM tools has become an important area of research.

NEED OF THE STUDY

Managing personal finances has become increasingly complex due to the expansion of digital payment systems, investment options, and financial products. Many individuals struggle with budgeting, saving, and investment planning due to lack of financial knowledge or time constraints.

AI-driven personal finance tools aim to solve these problems by providing automated financial analysis and decision support systems. These tools assist users in tracking expenses, monitoring financial health, and making better financial decisions.

The need for this study arises from the growing adoption of AI-based financial applications and the limited understanding of their overall effectiveness. By reviewing existing literature and technological developments, this study attempts to evaluate the benefits, functionalities, and limitations of AI-driven personal finance management tools.

OBJECTIVES OF THE STUDY

The major objectives of the study are:

1. To examine the concept of AI-driven personal finance management tools.
2. To analyse the key features and functionalities of AI-based financial applications.
3. To evaluate the benefits of AI in personal financial decision making.
4. To identify the challenges and risks associated with AI-driven financial tools.
5. To assess the future prospects of AI in personal finance management.

LITERATURE REVIEW

Several researchers have studied the impact of Artificial Intelligence on financial services and personal finance management.

Davenport and Ronanki (2018) examined how artificial intelligence is transforming business operations and highlighted its role in financial decision support systems. Their study indicates that AI improves efficiency and data analysis capabilities in financial services.

Jagtiani and Lemieux (2019) analyzed the role of FinTech innovations in financial services and emphasized that AI-based financial platforms are improving customer experience and accessibility.

Fuster et al. (2020) studied machine learning applications in finance and found that AI models provide more accurate predictions compared to traditional financial analysis methods.

Bazarbash (2019) highlighted that AI-driven financial applications enhance financial inclusion by providing personalized financial services to individuals who lack access to traditional banking systems.

Previous studies suggest that AI technologies are increasingly integrated into financial applications and play an important role in improving financial planning and management.

RESEARCH METHODOLOGY

Nature of the Study

The present study is descriptive and analytical in nature. It focuses on reviewing existing literature related to AI-driven personal finance management tools.

Data Sources

The study is based on **secondary data** collected from:

- Research journals
- Academic publications
- FinTech industry reports
- Online financial databases
- Technology and finance related articles

Method of Analysis

The collected information has been analyzed using a qualitative review approach to understand the technological features, advantages, and limitations of AI-based personal finance tools.

TECHNOLOGIES USED IN AI-DRIVEN FINANCIAL TOOLS

AI-driven personal finance tools rely on several advanced technologies, including:

Machine Learning

Machine learning algorithms analyze large datasets to identify patterns and trends in financial behavior. These algorithms improve accuracy over time by learning from historical financial data.

Natural Language Processing (NLP)

Natural Language Processing allows financial applications to interact with users through chatbots and voice assistants. Users can ask questions about their financial status or spending habits and receive automated responses.

Big Data Analytics

Big data technologies help process vast amounts of financial data collected from banks, credit cards, and digital transactions. This data is used to generate insights and predictions.

Predictive Analytics

Predictive analytics enables financial tools to forecast future expenses, savings patterns, and investment returns based on historical data.

Robotic Process Automation

Automation technologies reduce manual financial tasks such as bill payments, account reconciliation, and expense tracking.

TYPES OF AI-DRIVEN PERSONAL FINANCE MANAGEMENT TOOLS

AI-based financial applications can be classified into several categories:

Budgeting Applications

These applications automatically track income and expenses and help users create effective budgets.

Expense Tracking Tools

Expense tracking tools categorize transactions and provide detailed reports on spending patterns.

Robo-Advisors

Robo-advisors provide automated investment advice using algorithms and risk analysis models.

Credit Monitoring Tools

These tools analyze credit scores and offer recommendations to improve credit ratings.

Financial Planning Platforms

Comprehensive financial planning applications combine budgeting, savings, investments, and retirement planning.

AI IN PERSONAL FINANCE MANAGEMENT

Artificial Intelligence has introduced several innovative solutions in personal finance management. AI technologies analyze large volumes of financial data and provide customized financial recommendations to users.

Some key applications include:

Automated Budgeting

AI systems automatically categorize expenses and track spending behavior. Users can easily identify areas where they overspend and adjust their financial plans accordingly.

Intelligent Savings Tools

AI applications analyze income and spending patterns to suggest optimal saving strategies and automate savings transfers.

Robo-Advisory Services

Robo-advisors use AI algorithms to provide automated investment advice based on an individual's financial goals, risk tolerance, and investment horizon.

Fraud Detection

AI systems detect unusual transaction patterns and alert users about potential fraudulent activities, enhancing financial security.

Financial Forecasting

Predictive analytics helps users forecast future expenses, income patterns, and investment outcomes.

BENEFITS OF AI-DRIVEN PERSONAL FINANCE TOOLS

AI-based financial tools offer several advantages for individuals:

- Improved financial decision making
- Automated expense tracking and budgeting
- Personalized financial recommendations
- Enhanced investment management
- Increased financial awareness and literacy
- Real-time financial insights

ROLE OF FINTECH COMPANIES IN AI FINANCE TOOLS

Financial technology companies play an important role in developing AI-based financial applications. FinTech companies integrate banking services with advanced technologies to create innovative financial products.

Major contributions of FinTech companies include:

- Development of digital banking platforms
- Introduction of robo-advisory services
- AI-based fraud detection systems
- Mobile financial management applications

These innovations have made financial services more accessible and efficient.

CHALLENGES AND LIMITATIONS

Despite their advantages, AI-driven personal finance tools face several challenges:

Data Privacy Concerns

Financial applications require access to sensitive financial data, raising concerns about privacy and data protection.

Cybersecurity Risks

Financial platforms are vulnerable to cyber attacks and data breaches.

Algorithmic Bias

AI algorithms may produce biased financial recommendations if trained with incomplete or biased datasets.

Lack of Human Judgment

Automated systems may not fully understand complex financial situations that require human expertise.

FUTURE PROSPECTS

The future of personal finance management is expected to be increasingly influenced by Artificial Intelligence. Emerging technologies such as blockchain, advanced machine learning, and open banking systems will further enhance the capabilities of financial applications.

AI-based financial assistants may soon provide real-time financial coaching, automated tax planning, and integrated wealth management solutions. As technology evolves, AI-driven financial platforms will become more intelligent, secure, and user-friendly.

CONCLUSION

AI-driven personal finance management tools have revolutionized the way individuals manage their financial activities. These tools provide automated budgeting, intelligent savings suggestions, investment advice, and financial forecasting. The integration of artificial intelligence in financial applications improves financial decision-making and enhances user convenience.

However, issues related to data security, privacy, and algorithmic transparency must be addressed to ensure responsible use of AI in financial services. Despite these challenges, AI technologies are expected to play a significant role in the future of digital finance and personal wealth management.

REFERENCES

1. Davenport, T. H., & Ronanki, R. (2018). Artificial Intelligence for the Real World. *Harvard Business Review*.
2. Jagtiani, J., & Lemieux, C. (2019). The roles of alternative data and machine learning in FinTech lending. *Journal of Economics and Business*.
3. Fuster, A., Goldsmith-Pinkham, P., Ramadorai, T., & Walther, A. (2020). Predictably Unequal? The Effects of Machine Learning on Credit Markets. *Journal of Finance*.
4. Bazarbash, M. (2019). FinTech in Financial Inclusion: Machine Learning Applications in Assessing Credit Risk. *International Monetary Fund*.
5. Varian, H. (2019). Artificial Intelligence, Economics, and Industrial Organization. *Journal of Economic Perspectives*.