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# Dominance of Automation in Financial Services Industry

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**Introduction:** - The digital revolution and proliferation of latest technologies have taken the world by storm. The rapid adoption of these emerging technologies confirms that the age of automation is upon us. The financial service sector, typically perceived as a conservative industry, has undergone tremendous evolution over the last few years. Being the kind of industry, which is dominated by labour intensive processes, the banking industry had to lead in welcoming automation solutions.

The financial services industry is undergoing a significant transformation driven by the dominance of automation. Automation, powered by advanced technologies such as artificial intelligence (AI), machine learning (ML), and robotic process automation (RPA), has revolutionized various aspects of the industry, leading to increased efficiency, improved compliance, and enhanced customer experiences.

Automation has become a critical component of the financial services sector, enabling organizations to streamline processes, reduce manual intervention, and optimize operations. Tasks that were once time-consuming and prone to human error can now be automated, allowing financial institutions to allocate resources more strategically and focus on higher-value activities.

**How does automation deliver operation efficiency, regulatory compliance and better customer experiences?**

- a) **Efficiency** - Automation has streamlined numerous financial processes, such as account opening, transaction processing, and report generation. Tasks that were once manual and time-consuming can now be automated, reducing human error and speeding up operations. For example, automated transaction reconciliations and settlements enable faster and more accurate processing, leading to increased operational efficiency.
- b) **Compliance** - The financial industry is heavily regulated, and automation has greatly aided compliance efforts. Automated systems can track and monitor transactions, flag suspicious activities, and generate reports required by regulatory bodies. This ensures adherence to regulations such as anti-money

laundering (AML) and Know Your Customer (KYC) requirements. Automation also helps in updating systems to reflect changing regulations promptly, reducing compliance-related risks

- c) **Customer experiences** - Automation has transformed customer experiences in the financial industry. Chatbots and virtual assistants provide instant support, answering frequently asked questions and guiding customers through various processes. Automated account management systems allow customers to access their accounts, make transactions, and view statements at their convenience. This self-service capability enhances convenience and improves customer satisfaction.
- d) **Risk management** - Automation plays a crucial role in risk management by continuously monitoring and analyzing financial data. Automated risk assessment tools can detect anomalies, identify potential fraud or security breaches, and alert relevant stakeholders. This proactive risk management approach minimizes financial losses and protects both institutions and customers.
- e) **Data analysis and insights**: Automation tools can analyze vast amounts of financial data quickly, providing valuable insights for decision-making. This enables financial institutions to identify patterns, trends, and customer preferences, leading to more targeted marketing strategies and personalized offerings. Automated data analysis also aids in fraud detection, credit scoring, and investment decision-making.

### **Real Use Cases: Illustrating the Power of Automation**

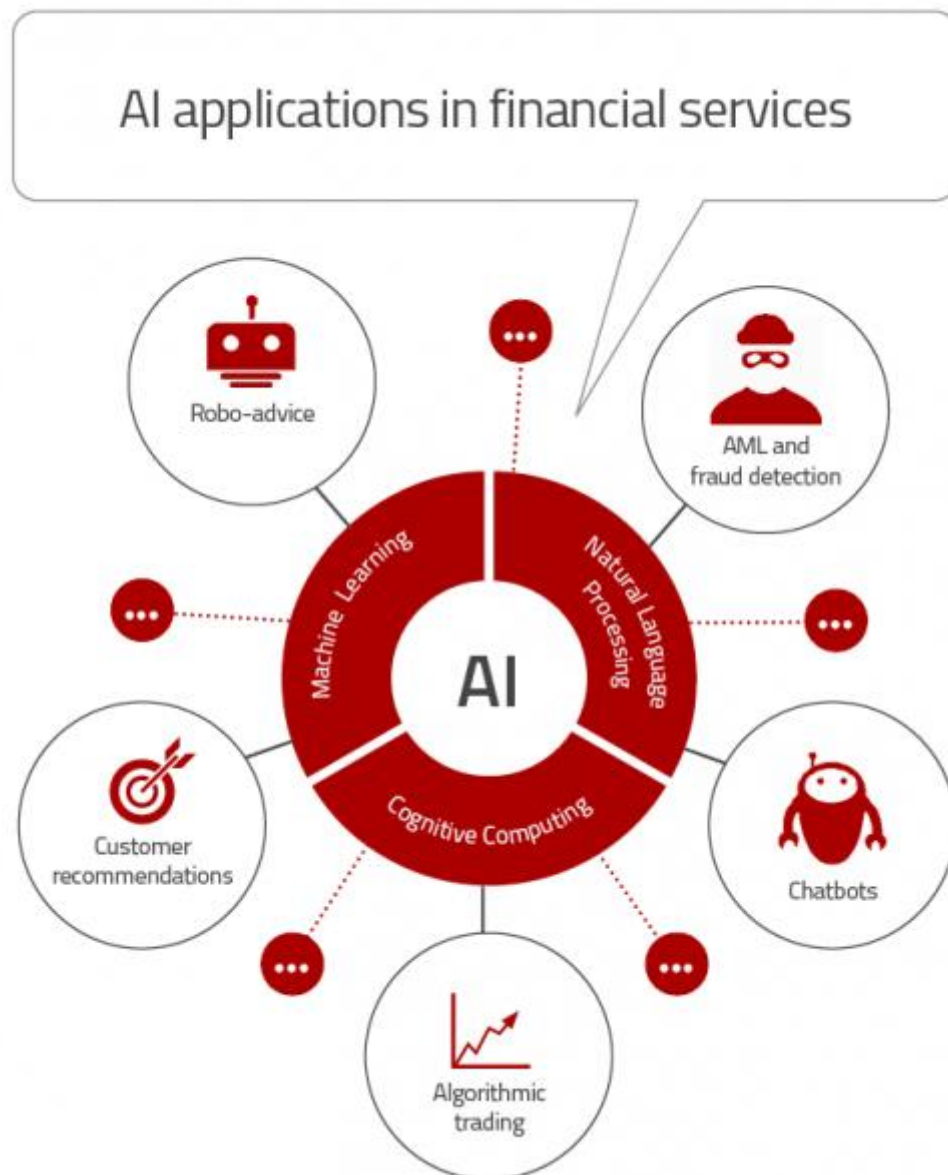
One real use case that demonstrates how automation has transformed various aspects of the financial services industry is in the area of customer service and support. Many financial institutions have implemented chatbot technology to automate and enhance their customer service processes.

Traditionally, customer service in the financial industry involved phone calls or in-person visits, which could result in long wait times and limited availability. With the introduction of chatbots, customers now have 24/7 access to support and can receive immediate responses to their queries.

Chatbots use natural language processing and artificial intelligence algorithms to understand customer inquiries and provide relevant information or assistance. They can handle a wide range of customer interactions, including answering frequently asked questions, providing account balance information, guiding users through the application process, and even offering basic financial advice.

Additionally, automation has played a transformative role in fraud detection and prevention. Machine learning algorithms can analyze large volumes of financial data, identify patterns, and flag potentially fraudulent activities. This enables financial institutions to detect and respond to fraud more quickly and accurately, minimizing financial losses and protecting customers.

In investment advisory, automation has revolutionized the industry through robo-advisors. These digital platforms leverage algorithms and data analysis to provide personalized investment advice and portfolio management. Robo-advisors can assess a client's risk profile, investment goals, and market conditions to offer tailored investment recommendations at a lower cost compared to traditional human advisors.



Overall, automation in customer service, fraud detection, and investment advisory has transformed the financial services industry by improving accessibility, efficiency, personalization, and cost-effectiveness.

### **Statistics on how AI will impact the financial industry**

As per latest report AI is expected to impact the financial industry.

**Cost savings:** According to a report by Autonomous, AI technology has the potential to generate cost savings of up to \$1 trillion for the financial industry by 2030. Automation of manual processes and increased operational efficiency are expected to contribute to these savings.

**Enhanced customer experiences:** Research by Capgemini suggests that 80% of financial institutions believe AI will revolutionize the way they interact with customers. AI-powered chatbots, personalized recommendations, and virtual assistants can provide faster, more accurate, and tailored customer experiences.

**Fraud detection and prevention:** AI is playing a significant role in fraud detection and prevention in the financial sector. According to a study by Juniper Research, AI-powered systems are expected to save the banking industry \$22 billion by 2023 by reducing fraudulent activities.

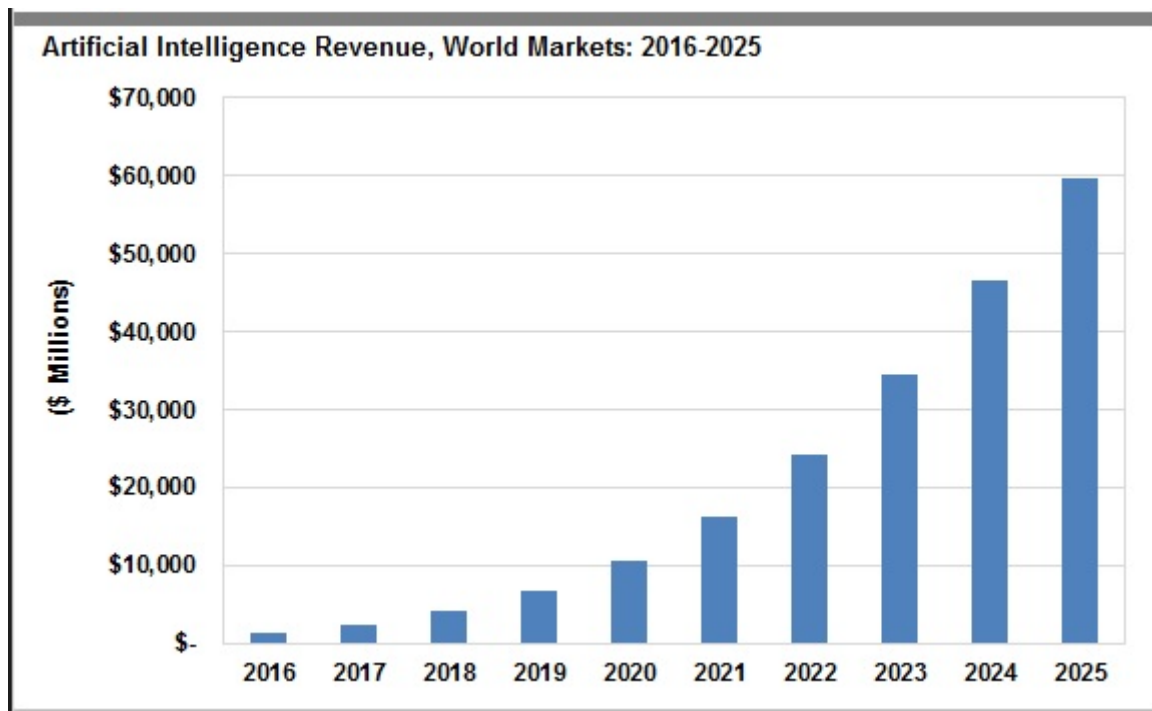
**Improved risk management:** AI algorithms can analyze vast amounts of data to identify patterns and anomalies, enhancing risk management practices. By automating risk assessment processes, financial institutions can make more informed decisions and mitigate potential risks.

**Investment advisory and wealth management:** The use of AI in investment advisory and wealth management is growing. A PwC report predicts that AI-driven robo-advisory platforms will manage around \$16 trillion in assets by 2025, highlighting the increasing adoption of AI in investment decision-making.

**Automation of back-office processes:** AI technologies like robotic process automation (RPA) can automate repetitive and time-consuming back-office tasks such as data entry, document processing, and compliance checks. This can lead to significant time and cost savings for financial institutions.

**Fintech Market:** The global AI fintech market is predicted to reach \$22.6B in 2025, achieving a Compound Annual Growth Rate (CAGR) of 23.37% between 2020 and 2025 according to Mordor Intelligence.

With the availability of technologies such as AI, data has become the most valuable asset in a financial services organization. Now more than ever, banks are aware of the innovative and cost-efficient solutions AI provides, and understand that asset size, although important, will no longer be sufficient on its own to build a successful business.



Estimate revenue projections for the financial industry by 2025

**Some common challenges on adoption of AI in the financial industry and potential mitigation strategies:**

- 1) **Data quality and bias:** AI algorithms heavily rely on data, and if the data used to train these algorithms is of poor quality or biased, it can lead to inaccurate results and unfair outcomes. Mitigation strategies include ensuring high-quality and diverse training data, implementing data validation processes, and conducting regular audits to identify and mitigate bias.
- 2) **Security and privacy:** AI systems in the financial industry deal with sensitive customer data, making security and privacy crucial concerns. Mitigation measures involve implementing robust security protocols, encrypting data, restricting access to authorized personnel, and complying with relevant data protection regulations such as GDPR.
- 3) **Regulatory compliance:** The financial industry is subject to various regulations and compliance requirements. Implementing AI systems that adhere to these regulations can be challenging. Organizations should work closely with legal and compliance teams to ensure AI models comply with relevant laws, establish transparency and explain ability, and conduct regular audits to verify compliance.
- 4) **Explain ability and transparency:** Many AI models, such as deep learning algorithms, are considered black boxes, making it difficult to explain the reasoning behind their decisions. Addressing this challenge involves using interpretable AI models, developing explain ability techniques, and ensuring transparency in decision-making processes to gain the trust of customers, regulators, and stakeholders.

- 5) Ethical considerations: AI systems can inadvertently perpetuate existing biases, discriminate against certain groups, or infringe on ethical principles. Organizations should establish clear ethical guidelines and conduct regular ethical reviews of their AI systems. Fairness assessments, bias monitoring, and ethical training of AI developers and users are crucial mitigation strategies.
- 6) Human-AI collaboration: Integrating AI into existing workflows and ensuring effective collaboration between AI systems and human employees is essential. Organizations should focus on providing training to employees to understand AI technologies, promoting a culture of AI acceptance, and creating mechanisms for human oversight of AI decisions.
- 7) Operational risks: AI systems can introduce new operational risks, including system failures, incorrect predictions, or malicious attacks. Robust risk management strategies should be implemented, including continuous monitoring, regular testing, backup systems, and disaster recovery plans to mitigate these risks.

Addressing these challenges requires a comprehensive and holistic approach, involving collaboration between technology experts, legal and compliance teams, and business stakeholders. Regular monitoring, auditing, and adapting to evolving risks and regulatory changes are essential to ensure the responsible and effective deployment of AI in the financial industry.

### **Conclusion: -**

In conclusion, the automation of the financial industry has brought significant advancements and benefits. Automation has improved efficiency by streamlining processes, reducing manual errors, and accelerating operations. It has also enhanced compliance efforts through automated monitoring, reporting, and adherence to regulatory requirements.

Moreover, automation has transformed customer experiences by providing personalized and seamless interactions, enabling self-service capabilities, and delivering faster and more accurate support. Automation has also improved risk management practices by leveraging data analysis and AI algorithms to detect anomalies, identify potential fraud, and enhance decision-making.

While there are challenges and risks associated with automation, such as data quality, security, and ethical considerations, organizations are actively working on mitigating these risks through robust strategies, transparency, and responsible implementation.

Looking ahead, the financial industry is expected to witness further transformation driven by ongoing digitalization, open banking initiatives, fintech innovation, and increased emphasis on personalization and sustainability. The integration of AI and automation will continue to play a vital role in shaping the future of the financial industry, enabling organizations to adapt to changing customer expectations, regulatory landscapes, and market dynamics.

Ultimately, the automation of the financial industry offers opportunities for improved operational efficiency, enhanced customer experiences, and more effective risk management, paving the way for a more digitized, inclusive, and technologically advanced financial ecosystem.

The dominance of automation in the financial services industry is reshaping business models and creating new opportunities. It enables financial institutions to adapt to evolving customer expectations, regulatory landscapes, and market dynamics. However, as with any technological advancement, challenges such as data privacy, ethical considerations, and human-AI collaboration must be carefully addressed to ensure responsible and effective implementation.

Overall, the dominance of automation in the financial services industry is driving efficiency gains, improving compliance efforts, and enhancing customer experiences. Financial institutions that embrace automation and leverage its power are well-positioned to thrive in the increasingly digital and competitive landscape of the financial services industry.

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