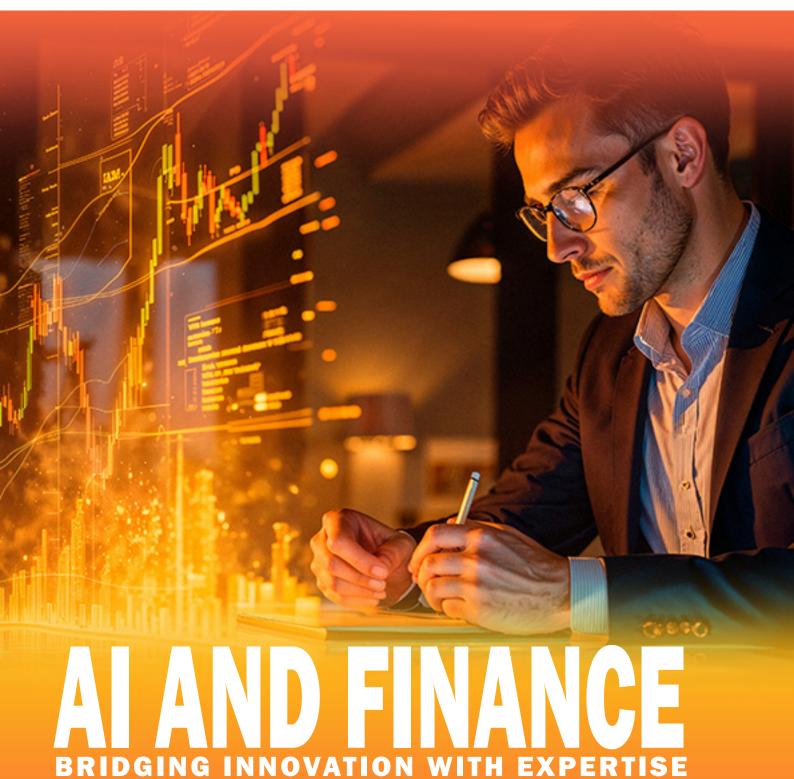
2025 4th ISSUE

SCAF TIMES

BY STUDENT CIRCLE OF ACCOUNTING AND FINANCE AT NSBM GREEN UNIVERSITY











NSBM GREEN UNIVERSITY

NSBM has designed world-class degree programs merged with leadership, ethics, global thinking, core management skills, and leading-edge technological innovations. It mainly focuses on producing graduates and postgraduate professionals in the above fields. It is defined by its mission as a creative and innovative school of future generations. NSBM is driven by the themes of innovation, entrepreneurship, technology, and globalization to direct the country towards a knowledge-based globalized economy while creating synergies with an existing body of knowledge after considering the needs of the 21st century in the fields of Management, Computing, Engineering, and Science education. As a forward-thinking higher education institute, NSBM assures the vital need to make learning relevant to industry expectations. NSBM has forged strategic collaborations with leading international universities such as the University of Plymouth (UK), Victoria University (Australia), and American University (Washington, DC). These affiliations enable its students to gain exposure to global thinking and best practices in international industries.





DEPARTMENT OF ACCOUNTING AND FINANCE

The Department of Accounting and Finance (DAF), inaugurated in February 2021, is one of the largest departments within the Faculty of Business at NSBM Green University. As a prominent department, DAF is dedicated to providing quality, world-class education to young undergraduates in the fields of Accounting and Finance. The department currently offers a range of degree programs: The Bachelor of Science (Honours) in Accounting and Finance, conferred in collaboration with the University of Plymouth and recognized by the University Grants Commission (UGC) of Sri Lanka, the Bachelor of Management (Honours) in Accounting and Finance, approved by the UGC and delivered by NSBM, the Bachelor of Management (Honours) in Business Analytics and the Bachelor of Management (Honours) in Business Economics and Decision Sciences - each of which is fully approved by the UGC.

DAF is led by Ms. Anne Pathiranage, the Head of the Department, along with a supportive and distinguished panel of lecturers who are committed to delivering top-tier education. To achieve its primary goal of delivering world-class education, DAF has established four departmental sub units and two student circles to support and guide students throughout their undergraduate journey.

- DAFED: Promotes innovative Accounting and Finance education and organizes supplemental training programs to help students become competent professionals.
- DAFPRO: Focuses on developing professional and employable skills, preparing students to successfully enter the corporate world.
- DAFCOLLABORATE: Fosters relationships with industry and professional accounting bodies, enabling students to explore various facets of Accounting and Finance.
- DAFNET: Provides services to ensure a comfortable, harmonized learning environment while supporting students' mental well-being.

In addition to its academic units, the department encourages student engagement through subject-based circles, which aim to promote peer learning, leadership, and co-curricular activities.

Student Circle of Accounting and Finance (SCAF):

The Student Circle of Accounting and Finance (SCAF) is the premier student body representing all students under the Department of Accounting and Finance. With a focus on enhancing students' knowledge, skills, and attitudes, SCAF creates a dynamic and inclusive environment that fosters collaboration, leadership, and innovation. Through a wide range of academic and extracurricular initiatives, SCAF continues to build a strong bridge between students and the department while nurturing the future professionals of the field.

Student Circle of Economic and Decision Sciences (SCEDS):

The Student Circle of Economic and Decision Sciences (SCEDS) is a subject circle that empowers students in Business Economics and Decision Sciences by promoting academic engagement, critical thinking, and exposure to real-world decision-making challenges.

Furthermore, the department is set to relaunch the Student Investment Advisory Team (SIAT) and the Students' Business Analytics Circle (SBAC), two subject-based circles designed to advance practical knowledge in investment strategies and data analytics.

With these comprehensive facilities, the Department of Accounting and Finance strives to nurture young undergraduates, helping them excel in their professional and academic careers while preparing them to become future leaders.

MESSAGE FROM THE DEAN

The Student Circle of Accounting & Finance (SCAF) is the main student association of the Department of Accounting and Finance at the Faculty of Business, NSBM Green University. Among its many innovative initiatives, the SCAF Times magazine stands out as a platform that empowers students to share their insights on Accounting and Finance topics through well-researched and thoughtful articles.

The theme of the fourth issue, "Al and Finance: Bridging Innovation with Expertise," invited students to explore how emerging technologies and intelligent investments are shaping the future of the finance industry.

In alignment with this theme, students have contributed insightful articles that examine how artificial intelligence is transforming financial decision-making, enhancing operational efficiency, and redefining the role of human expertise. It's truly inspiring to see the range of perspectives and depth of knowledge reflected in their work. I have great confidence in their potential and look forward to their future contributions.

I extend my heartfelt congratulations to the Department of Accounting & Finance and the SCAF team for the successful publication of this fourth issue of SCAF Times. I wish them continued success in all their future endeavors. As we celebrate the success of this fourth issue of SCAF Times I conclude with a timely quote

"Success is the culmination of dedication, continuous learning, and a true passion for our work"

Good luck...!



Ms.Thilini De Silva
DEAN - FACULTY OF BUSINESS

"Every significant achievement begins with a single step forward, no matter how small. It's the cumulative effect of consistent effort and perseverance, coupled with the willingness to embrace challenges and learn from setbacks, that ultimately propels you towards your goals."

MESSAGE FROM THE HEAD OF THE DEPARTMENT

Warm greetings, as we proudly present the fourth issue of SCAF Times.

As one of the largest departments in the Fac ulty of Business, the Department of Accounting and Finance at NSBM Green University strives to deliver the highest quality in teaching, research, and learning experiences for our undergraduates. Our mission is to shape future business leaders and responsible citizens by equipping students with the knowledge and skills essential for successful careers and further academic pursuits.

Our department remains committed to continuously improving our curriculum, ensuring that students are well-prepared for professional certifications and diverse career opportunities. We place strong emphasis on ethical standards, fostering a deep sense of social responsibility in our graduates. Through dynamic student circles and units, we provide a wide array of academic and extracurricular opportunities to help students grow into well-rounded individuals.

One of our most impactful initiatives, SCAF Times, plays a vital role in gathering and sharing timely, relevant knowledge within the student community and across the field of Accounting and Finance. The theme of the fourth issue, "Al and Finance: Bridging Innovation with Expertise," highlights the growing influence of artificial intelligence in reshaping financial practices, while reinforcing the enduring value of human insight and professional judgment.

In recent years, a remarkable technological revolution has transformed various aspects of the business world. The accounting profession has experienced significant change, with innovation driving productivity and efficiency. Likewise, the finance sector has undergone profound shifts,



Ms. Anne Pathiranage Head

Department of Accounting and Finance

"Success is not a destination but a journey marked by relentless effort and perseverance. Every setback you encounter is not a failure but an opportunity to learn and grow stronger. Embrace the challenges as stepping stones and remain committed to your goals, no matter how distant they may seem."

particularly through the integration of artificial intelligence. This transformation is enhancing accuracy, decision-making, and innovation, all while upholding the importance of ethical responsibility and human expertise.

This issue of SCAF Times explores these exciting changes and shares valuable insights with readers. I am immensely proud of our undergraduate writers for their dedication and hard work on this initiative. I wish them continued success with SCAF Times and beyond.

On behalf of the Department of Accounting and Finance, I warmly invite everyone to support, read, and engage with this meaningful publication.

MESSAGE FROM THE EDITOR

With great pride and joy, I present to you the fourth

issue of SCAF Times, the official magazine of the Student Circle of Accounting and Finance (SCAF), as the Editor of SCAF. This issue marks another milestone in our journey of empowering students to explore, express, and engage with the dynamic world of Accounting and Finance through writing.

Our theme this year, "Al and Finance: Bridging

Innovation with Expertise", is a reflection of the significant transformation reshaping the finance industry. As artificial intelligence becomes increasingly integrated into financial systems, it's crucial to understand how human expertise and ethical responsibility must complement technological advancement. Through this theme, we encouraged students to dive into timely discussions that blend innovation with insight.

We received an overwhelming number of submissions, each offering a unique perspective on the future of finance in the age of Al. It was truly inspiring to witness the depth of thought, creativity, and effort our undergraduates poured into their work. I extend my heartfelt gratitude to all the contributors, our judging panel, and our lecturers for their support and guidance throughout this process.



Anjula Nethmini Editor, SCAF Times 2025

This publication is more than a collection of articles; it is a testament to our shared commitment to knowledge, growth, and meaningful dialogue. As Editor, I strive to ensure that every word serves a clear purpose and every page delivers value. It is my hope that this edition will serve as a source of insight, encouragement, and inspiration to all our readers.

Special thanks go to the SCAF Editorial Team for their dedication, coordination, and commitment to producing this publication. Their behind-the-scenes efforts have made this issue a reality.

As you flip through these pages, I hope you find not only information but inspiration, with insightful thoughts that spark new ideas and provoke meaningful reflection on the future of our profession. Wishing you an insightful read!



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ABOUT US

As the SCAF, we are the representing the association of all the accounting and finance students of NSBM with a:

VISION

To be the ultimate hub in upgrading the Knowledge, Skills and Attitudes of all Accounting and Finance undergraduates and becoming the epitome of an active student council.

MISSION

To perceive and distribute knowledge; enhance leadership and personality traits; and promote a culture of togetherness beyond the virtual walls of the Circle through collaborative engagement.

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Al and Finance Bridging Innovation with Expertise

The theme "Al and Finance: Bridging Innovations with Expertise" explores how advanced technology and human knowledge work together to shape the future of the financial world. Artificial intelligence is transforming the way the finance industry operates. It is used to automate processes, analyze vast amounts of data, predict market trends, detect fraud, and offer highly personalized financial services. These capabilities bring remarkable speed, efficiency, and innovation to the field.

However, the power of Al alone is not enough to build a strong and trustworthy financial system. Human expertise is still at the heart of every critical decision. Professionals provide the judgment, ethical understanding, and strategic vision that machines cannot replicate. They can interpret results in the context of real-world conditions, adapt to unexpected changes, and ensure that technology is used responsibly.

This theme reminds us that the future of finance is not about replacing people with machines, but about combining the strengths of both. Artificial intelligence brings the ability to process and learn from complex data, while human insight ensures that these tools are applied in ways that are fair, transparent, and meaningful.

For students, it is an invitation to embrace learning that blends finance with technological skills, preparing them for a rapidly evolving industry. For professionals, it is a call to adapt and grow, integrating modern tools into traditional practices while safeguarding the values that define the profession.

At its' core, this theme is about finding balance. It is about creating a future where innovation serves human goals and where human expertise guides innovation to build a more intelligent, ethical, and effective financial world.



Sri Lanka's Ascent Towards an Empathetic Financial Future

Colombo, (2035). – The familiar hum of a tuk-tuk fades as it glides to a stop near the glistening Lotus Tower. The passenger, a young entrepreneur, steps out, a smile playing on his lips. Instead of fumbling for his phone or wallet, he nods. Moments later, the driver, Mr. Silva, checks his integrated digital meter and says, "Al paid already, sir. Check your Viduli Wallet – transaction confirmed!"

This is not distant science fiction; it is the near-future reality Sri Lanka is building, brick by digital brick, rupee by rupee. Artificial Intelligence is no longer just a buzzword for global tech giants or Wall Street algorithms. It is rapidly becoming embedded in the very fabric of Sri Lankan finance – from Al-powered chatbots serving rural clients in Sinhala to satellite data-driven microloan approvals for paddy farmers in Polonnaruwa. The nation's journey, spurred by recent economic imperatives, is not merely about automation or speed. It is about a profound collaboration: a synergy where cutting-edge innovation meets deep-rooted human expertise, where cultural insights guide machine intelligence, and where tradition shapes tomorrow's technology.

From Crisis to Code

Sri Lanka's recent financial troubles—including cascading inflation, rising debt, and shifting employment patterns—have forced a ground-up re-thinking of its financial framework. Al spearheads this revolution, leading innovation in a board array of financial services. Contemporary trends include the success of real-time payment channels like Lanka Pay and CEFT, the application of Al-based chatbots in key financial institutions such as Commercial Bank and Sampath Bank to enhance customer support, and the innovative FinTech Regulatory Sandbox of the Central Bank that fosters Al-based financial innovations.

These innovations merely set the stage for a far larger paradigm shift. Beyond traditional data analysis and rule-based applications. Sri Lanka is moving strategically towards what can be characterized as Contextual Finance. In this system, financial acumen is not just about brute data but understanding human behavior, social context, and ethical implications.

Invisible Al Infrastructure

Aside from the obvious applications, the subtle function of AI is the foundation of financial stability and trust. Al-powered fraud detection software, like those employed by local banks, detects anomalies within milliseconds, rendering digital transactions secure. Credit scoring models are revolutionizing access to finance for the previously "invisible" by leveraging alternative data points, such as utility payments, mobile top-ups, and even informal sector transaction patterns, to facilitate fairer loan assessments.

Mobile money services, such as FriMi and eZ Cash, refine their Al models to provide hyper-personalized budget advice and real-time spending analysis, enabling millions of users to make better financial decisions. Government agencies, such as the Inland Revenue Department, are looking to AI to enhance auditing effectiveness and plug revenue leakages. These "hidden" AI technologies continually improve and learn through feedback loops to optimize reliability, ensuring that visible financial innovation is backed by security and equity.

Lending to the Underserved

Historically, a significant portion of Sri Lanka's population has been financially invisible—lacking formal bank accounts, credit histories, or traditional collateral. Al is fundamentally changing this by constructing a "financial passport": a dynamic, Al-generated profile based on behavioral data, mobile usage patterns, utility bill payments, farming cycles, and even community network interactions.

For instance, a street vendor in Galle, who consistently tops up her mobile credit and pays her water bill on time, can now qualify for micro-credit through Al-driven scoring— even without extensive paperwork or a fixed address. This unlocks new opportunities for entrepreneurship, resilience, and upward mobility. Crucially, these Al systems are being designed to understand the context; a temporary dip in income during the Avurudu season or the monsoon's off-season for fisherfolk is recognized as part of the rhythm of local life, rather than being flagged as an immediate default risk.

Hyperlocal Solutions

What resonates in Hambantota might not work in Jaffna, and Al is proving invaluable in recognizing these regional distinctions. By processing vast datasets, Al enables the localization of financial

plans in Eastern coast fishing communities, informed by tide data and catch projections. In upcountry tea estates, Al helps managers optimize wage disbursements, welfare programs, and productivity, often communicating in multiple languages to diverse workforces. This hyperlocal intelligence transforms generic, one-size-fits-all banking into deeply tailored financial services that inherently understand regional cycles, languages, and livelihoods—moving beyond mere inclusion to achieve truly intimate finance.

Ethical Horizons and Challenges

This immense potential of AI also brings with it equally huge responsibilities, including protecting data privacy, preventing algorithmic biases (such as gender or rural bias), and reducing the long-standing digital divide. Recent Sri Lankan fintech policy and the Central Bank Digital Payment Roadmap are heartening starting points. However, concerted effort by policymakers, academia, and civil society is needed to ensure equity and fairness. Financial privacy is particularly vulnerable. Individuals must be assured that their personal data and financial details are secure and free from unauthorized use and abuse. To provide this assurance, Al systems must be embedded with explainability: algorithms must be as transparent as possible and robust. Regular, rigorous audits must be carried out. Algorithmic bias in Al is a real threat; male- or urban-consumer-biased training data can unintentionally discriminate against underrepresented groups, reinforcing existing imbalances. Proactive diversification of datasets and continuous feedback loops from society will be needed to counter such risks. Finally, while smartphone penetration is improving, regular internet access and digital literacy have yet to reach many rural households. Bridging the gap between high-end Al solutions and accessible offline interfaces will be at the center of truly inclusive financial innovation.

Conclusion: Beyond Smart, Empathetic

Sri Lankan AI is transcending its role as a mere efficiency booster; it is emerging as a vital collaborator in creating a more humane, resilient financial future. This revolution is an enabling fusion of cutting-edge technology with centuries-old wisdom, cultural sensitivity, and moral imagination.

Empathetic finance challenges us to envision a world where Al goes beyond code to interpret human context, understand societal values, and navigate ethical complexities— where finance is no longer solely about profit maximization but about dignity, resilience, and broad-based empowerment. Here, technology and human expertise do not clash; they work in tandem to build a financial system that is both intelligent and deeply human.

The Sri Lankan financial revolution is powered not by machines alone but by a profound relationship: humans and Al, heritage and innovation, numbers and ethics. Together, we are building not just more intelligent systems but truly empathetic capital—finance with a conscience and a mission to serve every Sri Lankan.



Yaline Shanthakumar BM (Hons) in Business Analytics Batch - 24.2 NSBM Green University





The Dawn of a New Era in Television Advertising

The television advertising industry is undergoing a profound transformation, driven by rapid advancements in artificial intelligence and machine learning. At ITN Sri Lanka, we stand at the forefront of this revolution, pioneering innovative approaches to advertisement valuation that are reshaping how financial institutions connect with their audiences. In an increasingly competitive media landscape where every rupee of advertising spend must be justified, traditional valuation methods based on static rate cards and generalized audience metrics no longer suffice. This comprehensive exploration delves into how we're leveraging AI technologies to create a more dynamic, precise, and results-driven advertising ecosystem for Sri Lanka's financial sector.

The Limitations of Traditional Valuation Methods

For decades, television advertising valuation followed relatively straightforward principles. Rates were determined primarily by time slots and program popularity, with adjustments made periodically based on broad viewership trends. While this approach served the industry adequately in simpler times, it fails to address the complex needs of modern financial advertisers. Banks, insurance companies, and fintech firms require more sophisticated solutions that can identify specific customer segments, respond to real-time market conditions, and demonstrate clear return on investment. Traditional methods struggle with several critical limitations. They lack the flexibility to adjust pricing dynamically based on immediate demand fluctuations. They rely on demographic categorizations that are often too broad to be truly useful for financial products. Perhaps most importantly, they provide limited capabilities for measuring actual campaign effectiveness, leaving advertisers without concrete evidence of how their television spend translates into business results. These shortcomings have created an urgent need for innovation in how we value and sell advertising inventory.

The Al Solution: A Multi-Faceted Approach

At ITN Sri Lanka, our Al-powered valuation system addresses these challenges through an integrated suite of capabilities that work in harmony to deliver superior results. The foundation of this system is a sophisticated data infrastructure that consolidates information from multiple sources, such as viewership metrics, historical ad performance, economic indicators, and competitive activity. This rich dataset feeds machine learning algorithms that identify patterns and

relationships far beyond what human analysts could discern.

One of the most transformative applications of this technology is in dynamic pricing. Rather than maintaining fixed rates for given time slots, our system continuously analyzes dozens of variables to determine optimal pricing in real time. When economic news breaks that might increase demand for investment products, the system can adjust rates accordingly. When viewership patterns shift unexpectedly due to external events, it identifies new opportunities for targeted placements. This responsiveness creates a more efficient marketplace that benefits both advertisers and our network.

Precision Targeting for Financial Products

Perhaps the most significant advantage of our Al system is its ability to facilitate precision targeting of financial advertisements. Through advanced audience analysis techniques, we can now identify specific viewer segments with remarkable accuracy. Our models go beyond basic demographics to understand financial behaviors, product affinities, and life-stage needs.

For instance, we can identify viewers who are most likely to be in the market for a home loan based on their viewing habits, geographic location, and demonstrated interests. We can pinpoint small business owners who might benefit from specialized banking services. We can even detect subtle shifts in financial sentiment that indicate receptiveness to certain types of messaging. This level of targeting precision was unimaginable with traditional valuation methods and represents a quantum leap forward in advertising effectiveness.

Automated Compliance: Reducing Risk While Increasing Efficiency

In the heavily regulated financial services sector, advertising compliance is a constant concern. Our Al system incorporates powerful compliance automation tools that scan every ad script for potential regulatory issues before production begins. The system checks for required disclosures, flags potentially misleading claims, and ensures all content meets the stringent standards set by Sri Lanka's financial regulators.

This automation provides multiple benefits. It significantly reduces the risk of costly compliance violations. It speeds up the approval process, allowing time-sensitive campaigns to launch faster. Perhaps most importantly, it gives our financial sector clients confidence that their advertisements will meet all regulatory requirements without sacrificing creative impact.

Measuring What Matters: Performance Attribution

One of the most persistent challenges in television advertising has been demonstrating concrete return on investment. Our Al-powered attribution framework solves this problem by connecting ad exposures to actual business outcomes. Through a combination of unique response mechanisms, geo-fencing technology, and sophisticated survey techniques, we can now show advertisers exactly how their television spend translates into website visits, branch traffic, and ultimately, new accounts or policies.

This capability represents a paradigm shift in how financial institutions evaluate their advertising investments. No longer must they rely on vague metrics like 'brand lift' or 'awareness'; they can now see precisely which ad placements drove measurable business results. This transparency builds trust and enables more informed media buying decisions.

Implementation Journey: From Concept to Reality

Bringing this vision to life required careful planning and execution. Our implementation followed a phased approach designed to manage risk while delivering continuous improvements. The first phase focused on building the necessary data infrastructure by consolidating years of historical data, establishing new data collection pipelines, and ensuring all information could flow seamlessly into our analytical models.

With the foundation in place, we moved to model development and testing. This involved creating specialized algorithms for different aspects of the valuation process, including pricing, targeting, compliance, and attribution. Each component underwent rigorous testing against historical campaigns to validate its effectiveness before being deployed in live environments.

The third phase involved controlled pilots with select financial institution partners. These real-world tests allowed us to refine the system based

on actual user feedback and performance data. The insights gained from these pilots proved invaluable in shaping the final system architecture and user interfaces.

Today, we're in the process of rolling out these capabilities across our entire financial advertising business. The transition has been carefully managed to ensure continuity for existing clients while unlocking the full potential of Al-driven valuation for new campaigns.

Success Stories: Al in Action

The true measure of any innovation lies in its practical impact. Several recent campaigns demonstrate the power of our Al-powered approach. One particularly compelling case involved a national bank launching a new digital banking platform. Traditional approaches would have suggested prime-time placements to maximize reach. Our Al system, however, identified a more nuanced strategy by targeting tech-savvy younger viewers through specific entertainment programs where digital banking messaging had historically performed well, combined with strategic daytime placements to reach small business owners. The results exceeded all expectations. The campaign achieved 35% higher account sign-ups than previous efforts, with a 22% reduction in cost per acquisition. Equally importantly, the detailed performance data allowed the bank to understand exactly which elements of the campaign drove results, informing their future media strategy.

Another success story comes from the insurance sector. Facing the challenge of promoting monsoon-related insurance products, our Al system analyzed years of weather patterns and their correlation with insurance purchasing behavior. It identified optimal timing windows for different geographic regions and recommended tailored creative approaches for each market segment. The resulting campaign achieved unprecedented response rates while staying well within compliance guidelines.

The Human Element in an Al-Driven World

While Al provides powerful capabilities, we've been careful to preserve the essential human elements that make advertising effective. Our team of valuation experts plays a critical role in interpreting Al recommendations, applying market intuition, and maintaining client relationships. The most successful campaigns emerge from this collaboration between human creativity and machine intelligence.

This balanced approach ensures we avoid the pitfalls of over-reliance on algorithms. While AI can identify opportunities and predict outcomes, human judgment remains essential for strategic thinking, creative evaluation, and ethical oversight. The combination creates a system that's greater than the sum of its parts.

Looking Ahead: The Future of Al in Financial Advertising

As impressive as our current capabilities are, we see this as just the beginning. Several exciting developments are on the horizon that will further enhance our Al-powered valuation system. Predictive creative testing will allow us to evaluate multiple ad variations before production begins, identifying the approaches most likely to resonate with target audiences. Voice-activated response tracking will open new possibilities for measuring engagement and intent.

Perhaps most significantly, we're working toward fully integrated cross-platform attribution that will show how television advertising works in concert with digital channels to drive business results. This holistic view will give financial advertisers unprecedented insight into their media mix optimization.

At ITN Sri Lanka, our Al-powered approach to advertisement valuation represents more than just a technological upgrade; it's a fundamental rethinking of how television creates value for financial advertisers. By combining cutting-edge machine learning with deep market expertise, we're delivering measurable business impact while maximizing the potential of our advertising inventory.

For financial institutions looking to break through the clutter and connect with their ideal customers, this Al-driven approach offers a clear competitive advantage. It transforms television from a broad-reach awareness medium to a precision performance channel capable of delivering specific, measurable business outcomes. As we continue to innovate and refine these capabilities, one thing remains certain: the future of financial advertising on television will be smarter, more targeted, and more accountable than ever before. At ITN Sri Lanka, we're proud to be leading this transformation and redefining what's possible in our industry.

P.C. Keragala BM (Hons) in Accounting and Finance Batch - 22.2 NSBM Green University



The Future of Financial Services: How Al is Redefining the Industry

Historical Context

Evolution of AI in Finance

In the last ten years, the field of machine learning has experienced unparalleled development, with the major paradigm change in the application of artificial intelligence (AI) within the financial sector. In the past, AI was thought of as an exciting concept that was reserved for research purposes only. However, within the last five years, it has turned out to be a key technology with numerous applications within the real world in many areas of financial services

The integration of AI into finance enabled firms to streamline work, deal with massive quantities of data, and enhance the process of making decisions. The advancements have transformed talks of model governance, security, and managing risk into more and more common discourse within the industry. With financial processes getting more and more involved with AI systems, interest shifted away from conceptual investigations into coping with operational implications and AI technology threats

Applications and Implications

Al integration in economics has modified the entire system of financial services of a given institution by enabling personal tailoring of products, managing risk, automating compliance, and even operational processes. Al encompasses much more than is currently being used, which now focuses on efficiency improvements, a better understanding of market dynamics and industry customer behaviors. At present, financial organizations stand in a position to utilize Al insights for various predictive analytics, real-time calculations, and intelligent data calls, which at best mimic human interaction

Al Technologies in Finance

The fundamental sphere of Artificial Intelligence is growing tremendously and has been, and is going to be, tremendously promising for emerging technologies via the utilization of Algorithms, Problem Solving Methods, Environments, Machine Learning and Natural Language Processing vis-a-vis in financial markets Al is revolutionizing the entire system by automated data analysis, process automation, improving the entire decision-making sequence and performing a myriad of tasks at once

Machine Learning and Data Analytics

From improving performance monitoring and providing deeper financial analytics, machine learning, which is a subdivision of Al, plays an increasingly important role in financial services in combination with data analytics. Not only does it enable firms to improve their understanding of market trends but also enhance strategic customer behavior with the aid of well- informed decisions.

Up against all odds, the financial AI technologies also cross the borders of the safe risk management and fraud detection zone. By



automatically analyzing transaction patterns, Al can detect anomalies and possible fraud on a real-time basis, thus facilitating fast counteractions against financial threats. Furthermore, Al assures transparency and compliance with respect to regulations by automating reporting processes and ensuring that organizations meet their legal requirements

Automation and Operational Efficiency

Al mechanisms have been employed in the automation of bank processes and functions. Identity verification, for instance, is based on automation through OCR, NLP, and Robotic Process Automation. Not only does such automation save considerable time, but it also reduces human error, thereby improving customer experience.

Use of Al within Finance

Al has drastically impacted the finance sector, resulting in numerous applications that improve efficiency, decision-making, and customer experience. With Al as a part of the financial industry technology, the finance industry can read data, automate processes and improve performance, through different functions.

Fraud Detection and Prevention

Al is a major boost for fraud detection within financial firms. Conventional fraud detection systems have fallen behind the rapidly evolving complexities of crime. With Al networks, large volumes of transaction data are being processed in real-time to recognize those patterns and anomalies that may suggest potential fraud.

Blending Innovation with Expertise

The applications of AI in financial services are revolutionizing investment management, increasing efficiency, personalization, and responsiveness of financial services. The key applications are automated knowledge management, investment research, and customized banking, driven by innovation in generative AI (GenAI).

North American banks are leaders in Al adoption, making investments in fraud prevention platforms, customer support robots, and Al-supportive hardware like NVIDIA chips. Banks want to streamline

processes, increase innovative solutions, and enhance financial risk management using Al-based data analysis and decision-making. However, they must also comply with regulations and keep processes transparent while driven by Al.

Al is shifting professionals' focus from mundane work to strategic decision-making, boosting productivity. To realize this shift, partnerships between financial institutions and learning institutions are building Al and digital finance skills, for example, initiatives by the Central Bank of Egypt, Lloyds Bank, and Prudential.

Challenges and Considerations

Stakeholders face many challenges and considerations that need to be addressed and overcome to ensure ethical and compliant practices in applying artificial intelligence (AI) in the finance sector.

- 1. Ethical Implications
- 2. Data Privacy and Security
- 3. Regulatory Environment

Ethical Implications

Banks and other financial institutions have an ethical responsibility that goes beyond compliance to consider the social implications of the use of Al. Some of the ethical challenges that should be resolved include transparency, accountability, privilege, bias, misplaced reliance, and security.

An ethical framework could be established to reduce the potential of harm and to maintain public trust in Al technologies. The principles of fairness, transparency, and accountability should be embedded in the design and development of Al systems.

Data Privacy and Security

The growth in the use of Al technologies within the financial sector poses significant risks to data privacy and security. There is now a greater risk than before for financial institutions dealing with sensitive data and their compliance with state and federal data privacy laws such as CCPA and NYDFS. These laws impose strict conditions on the collection and sharing of data for businesses. Companies, especially those dealing with sensitive consumer information, need to be more responsible with data governance by self-regulating proactively with the regulators, dealing with bias and accuracy issues, and other questions of Al ethics in the ongoing due diligence.

Regulatory Environment

The regulatory environment for AI has dramatically changed over the past two years and is now more crystallized but extremely divergent between jurisdictions. Financial institutions and banks must stay current on compliance matters pertinent to their operating geographies. With regulations on AI changing from guidelines to binding legislation, high-stakes industry participants such as finance must strictly comply with these regulations to avoid significant fines and reputational damage.

This development makes businesses monitor regulatory progress closely and invest in stringent Al governance policies to remain ahead of upcoming regulations as 2025 approaches.

Future Trend

- Real-Time Processing of Data and Machine Learning
- Ethical AI and Bias Reduction
- Cybersecurity Risks

Real±Time Processing of Data and Machine Learning

The most crucial trend that is going to transform the future of finance in 2025 is increased reliance on real-time processing and analysis of data through machine learning (ML). As markets become more dynamic, the ability to analyze and interpret real-time streams of data has been invaluable. This trend enables financial institutions to automate analysis of large data sets, yielding real-time insights that are vital in high-speed settings like trading. Decisions based on fractions of a second of information can make a big difference in profitability, and hence real-time analytics is essential for maintaining a competitive edge. Moreover, this functionality is also of utmost importance to use in fraud detection and risk management, allowing institutions to recognize and respond to suspicious activity in real time



Ethical AI and Bias Reduction

With the increasing use of artificial intelligence (AI) in finance, the ethical application of AI is becoming more and more relevant. With the use of AI in finance, a sharp eye must be kept on matters of bias in machine learning algorithms. Making sure that AI systems are transparent, and fair will be of utmost importance because these technologies are influencing the decision-making of millions of people. Institutions will have to implement measures that not only promote ethical use of AI but also minimize the potential biases that can lead to discrimination when lending and insurance premiums are concerned.

Cybersecurity Risks

The increasing reliance on technology and information within FinTech increases the risk of cyber-attacks, including hacks and data breaches. The more technology improves and gets into the hands of users, the greater the threat of nefarious users disrupting systems. Financial institutions largely must fight to combat cybercrime, with cybersecurity measures and regulations acting as safeguards. Al scaling brings an additional layer, with unauthorized access to Al models and underlying data becoming an identified threat for organizations looking to protect their assets and trust of their consumers.

Conclusion

All has changed the financial sector, changing the way we operate, make decisions and engage with customers. Over the last 10 years it has become an essential tool, making us more efficient, personalizing services and detecting fraud through machine learning and natural language processing.

But ethical concerns, data privacy and regulatory challenges remain. Financial institutions must prioritize fairness, transparency, accountability and robust security to ensure responsible Al adoption.

Looking ahead, real-time analytics, ethical AI and security will shape the future of finance, for sustainable growth and resilience through the balance of innovation and expertise.

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Can Algorithms Feel Fear?

Behavioral Finance Meets Al



'MONEY MAKES THE MARE GO" they say. But what if the mare simply polts out of fear, greed or optimism? On March 13, 2020, the world's financial markets witnessed one of the most extreme crashes in recent nistory. The cause wasn't a shift in economic fundamentals, but it was panic. When COVID-19 tightened its grip and lockdowns swept the globe, investors panicked and sold. All programs would have seen that the volume spikes and the sudden changes in market sentiment, but they could not truly get at the underlying reasons for it. Beneath all that data it was human emotion raw, irrational, and contagious emotions that drove the market to collapse. This raises the big question as All receives a bigger slice of the financial seat, can it truly understand numan behavior? And more importantly, can the marriage of human

intellect and machine innovation lead us to better decisions in the volatile world of finance?

To answer this, we must begin with the foundation of behavioral finance. Finance has long been based on the idea that human beings make rational decisions, but the reality doesn't agree with this. Behavioral finance, a new influence in economics, examines how psychological factors play a role in financial decisions. It explores why investors act irrationally, often contravening sense or mathematics. Key concepts of behavioral finance include:

- Loss aversion, which says that the losses hurt more than equivalent gains thrill us.
- Herd behavior is when individuals make decisions because others are doing the same.
- Overconfidence happens when investors overestimate their ability to predict the market.
- Fear of Missing Out(FMO) is the fear that others are getting something that you're not, in finance it often leads to impulsive investments.

Think about the GameStop frenzy in early 2021. It wasn't driven by good financial performance. Instead, the interplay of internet protest, emotional momentum and group dynamics pushed its price to irrational levels. No traditional model could have predicted this. It was the embodiment of behavioral finance.

There the AI came into focus. In the last decade Artificial Intelligence has become a game changer in the financial sector. It implements high frequency trading algorithms that can execute thousands of trades per second. It assesses risk through real-time analysis of millions of data points .It powers robot advisors who build investment portfolios best catering to individual

preferences and it helps to detect fraud and improve credit scoring. These use cases portray a few strengths of Al: it is fast, scalable and objective but these systems are trained using historical data. They know what happened. But they don't know why it happened. For instance, an Al model can spot a trend of stock sell offs after bad news, but it does not comprehend the human fear that drives it. It cannot grasp how fear can overshadow logic and how hope could give way in favor of reckless bets.

This limitation becomes more apparent during periods of uncertainty. Al models expected an early recovery of the economy during the COVID-19 pandemic because of expected fiscal stimuli and injections of liquidity. However, it did not take into consideration the people's psychological fatigue, which was a causative factor that prevented them from investing. Some kept their cash in fear of the outbreak; some sold out cheaply out of fear to regret it later. While Al may be able to replicate economic growth, it simply could not measure the uncertainty as such, nor predict the fickleness of decisions influenced by private fears or public pressures. A hedge fund analyst who quoted "Al can compute but can't blush over a poor headline". That is turn white red response from a human which arguably determines the markets.

How shall we link these two together? How do we combine Al's innovation with human lived experiences and emotional intelligence? This is the crux of what the theme brings and where bridges are drawn: pairing innovation with expertise. It isn't about replacing humans. It is about complementing them. Al imparts speed and accuracy while finding hidden patterns in insurmountable chunks of data and humans inject context, ethical judgment and deep emotions into situations. Either can do a lot; together, they can do much more.

However, in order to avoid reacting instantly to its signals, analysts at the firm instead review the data through a human lens: the country- or region-specific cultural events, political tensions, or even the outcome of a cricket match that might affect investor sentiments. They then decide whether or not to act after this human-Al dialog. This type of hybrid model make sure that decisions are not something that relies on data alone but one that meets the emotions and sense because of experiencing the real world.

When it comes to AI, emotional data rather than crunched up raw data, defines the next level capability. For instance Emotion Al or affective computing, presents design features for systems to read tone of voice and facial expression and so many other indicators such as typing speed and time of response, allowing systems to interpret stress, anxiety, or even the intent of the user. While some banks are building AI solutions for emotional responses during video calls with their customers, these advances will extend AI into the realm of behavioral triggers understanding them with no guarantee universal empathy will prove forthcoming. One thing AI will do is detect nervous tones in voices but it hardly ever grasps the notion behind losing a job or a fear of market collapse. Al can hear distress in a client's voice but does not have the ability, nor capacity, to calm the individual. This is where another human must step in.

Behavioral finance is all about context. One's emotions are very subjective and mostly answerable to someone's culture, experiences, and even lineage. Investors from Sri Lanka, for example, would be more risk-averse due to inheritance shocks from previous economic downturns. Generational traumas would most probably render such investors conservative. Al trained in global markets would miss such local nuances. By the same token, a machine wouldn't guess that an increase in gold prices in Colombo had to do with a seasonal wedding rush rather than due to global economic uncertainty. And that is how human expertise is irreplaceable. The appreciation of the local behavior and all those cultural things combining human interpretation of something that AI might not be able to do, gives insight-at least not yet-without the computer. This with the much power of behavioral insight could really shoot through the roof the potential of Al.Just envision an era where your personal finance assistant holds the capability of keeping track of expenses and cries foul if one is about to make any emotionally driven financial decision. It could caution you before you go with your guts and make a risky trade as news headlines warn against them or tell you that you probably found yourself spending too much on the previous weeks because things have been tough. A future scenario where Al would no longer be limited to responding to financial input: It would be a forward-looking agent anticipating possible behavioral tendencies and instructing the investor on how to improve their handling of the opportunity. In this case, it is also not just anticipating a potential next market move; rather, it is more guiding the investor within.

In essence, the collaboration between AI and behavioral finance is not a rivalry between man and machine; it is an intensely collaborative effort, since finance is not mere digits on a screen. It is the manifestation of human dreams, fears, instincts, and irrationalities. No machine, however advanced, can actually "feel" these emotions. But it can learn to recognize patterns suggesting emotional decision-making. Human experts, however, can temper and enhance machine recommendations with emotional intelligence, cultural context, and ethical reasoning. Therefore, when we bridge Al's innovation with human expertise, we don't obscure emotion from finance but refine it. This future will be where man has technology serving him instead of dominating him. Because not even the smartest algorithm can stop one from selling out of panic. Perhaps with the right collaboration, though, it might help us hesitate, reflect, and make a better decision.

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Merging Innovation with Financial Expertise:

How Metro Finance is Revolutionizing Novated Leasing through AI in Australia

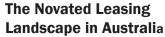
Introduction

As technology rapidly reshapes industries worldwide, the financial sector is undergoing a significant transformation. At the centre of this evolution is Artificial Intelligence (AI), revolutionizing how financial institutions assess risk, interact with clients, and process data. In Australia, Metro Finance is emerging as a key innovator by leveraging AI to enhance novated vehicle leasing—a financing model gaining increasing popularity among working professionals.

This article examines how Metro Finance is integrating cutting-edge technology with indepth industry expertise to deliver a smarter, faster, and more transparent novated

> leasing experience Australia.

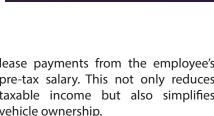




Novated leasing tax-efficient vehicle financing solution that has gained strong traction among Australian employees. involves three-way agreement between employee, their employer, and a finance provider. Through this arrangement, the employee leases a vehicle, while the employer makes

lease payments from the employee's pre-tax salary. This not only reduces taxable income but also simplifies vehicle ownership.

Employers find value in offering novated leases as part of remuneration packages, which can enhance employee satisfaction and retention. Metro Finance is a prominent player in this field, offering flexible and tech-enhanced leasing solutions tailored to suit a variety of financial profiles.



Redefining Novated Leasing with Al

While many lenders still rely on traditional processing systems, Metro Finance has embraced AI to reinvent the novated leasing experience. By incorporating Al across its operations, the company has improved efficiency, precision, and customer satisfaction.

Al applications are transforming every stage of the leasing process—from application and approval to customer support and end-of-lease planning. This integration ensures faster service, data-driven decisions, and more tailored offerings for clients.

Smarter Credit Assessment with Al

Conventional credit assessments often rely on static data like credit scores and require manual review, leading to delays and potential inconsistencies. Metro Finance's Al- powered credit evaluation system overcomes these issues by:

- Assessing broader data sets including employment stability, income patterns, and financial behavior.
- Accelerating decision-making with instant approvals or escalations.
- Promoting fairness through algorithmic consistency, reducing the risk of human error or bias.

These capabilities are particularly valuable in novated leasing, where rapid approval can be the difference between securing or missing out on a vehicle.

Standing Out from the Competition

Many financial firms dabble in AI by implementing features like chatbots or fraud detection tools. However, Metro Finance has embedded AI throughout its operations. From intelligent credit analysis to predictive support and personalized lease recommendations, the company's end-to-end AI integration offers a cohesive and streamlined user journey.

This sets Metro apart in terms of customer satisfaction, operational flexibility, and innovation readiness.

Enhancing Customer Service through Automation

Today's consumers expect instant, personalized, and always-available service. Metro Finance meets these demands with Al-driven solutions such as:

- 24/7 chatbots that assist with quotes, FAQs, and lease details
- Predictive alerts that notify users about upcoming payments or lease expiry.
- Natural Language Processing (NLP) allows customers to communicate effortlessly and receive human-like responses.

A Real-World Example: James' Leasing Journey

Consider the case of James, a Melbourne-based project manager. After submitting his application for a novated lease via Metro Finance, he received instant approval and a selection of personalized leasing options. His questions were answered by a virtual assistant—even after business hours—and he completed the leasing process entirely online. Within a few days, James had his vehicle delivered.

What used to be a multi-week process became a smooth, Al-enhanced experience.

Benefits for Employees, Employers, and Metro Finance

- Employees enjoy quick approvals, tailor-made financial products, and around-the- clock service.
- Employers benefit from streamlined payroll processes and happier staff.
- Metro Finance gains improved operational efficiency, lower overheads, and smarter risk management.

These collective advantages enhance trust and transparency, critical components in financial services.

Navigating Policy and Compliance

As Al becomes more prevalent, regulatory oversight in Australia is increasing. Metro Finance adheres strictly to data privacy laws, such as those enforced by the Office of the Australian Information Commissioner (OAIC). Customers are also given the ability to opt out of Al-driven decisions, promoting transparency and autonomy. Additionally, with rising demand for electric vehicles (EVs), Metro is developing Al- powered EV lease packages that consider factors like environmental impact and charging accessibility.

Addressing Ethical and Technical Challenges

The adoption of Al brings its own set of challenges, which Metro Finance addresses proactively:

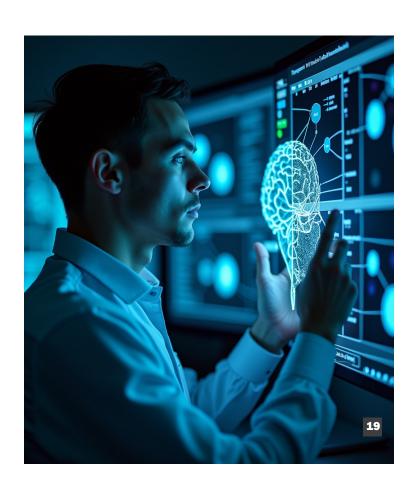
- Data protection is ensured through compliance with stringent Australian privacy regulations.
- Bias mitigation is achieved through continuous auditing of algorithms to ensure fairness.
- Transparent decision-making is facilitated through explainable AI tools that allow customers to understand application outcomes.

The Road Ahead: Innovation with Sustainability

Metro Finance is already exploring advanced technologies to further enrich the leasing experience, including:

- Telematics for tracking vehicle usage and performance.
- Blockchain-based smart contracts to minimize fraud and paperwork.
- Sustainability scoring tools to support green leasing options.

Experiments with **Augmented Reality (AR)** are also underway, allowing customers to virtually explore and customize vehicles before making decisions.





Conclusion

Metro Finance is not merely keeping pace with the digital disruption sweeping through the finance industry, it is setting a bold precedent. By embedding Al into the very core of its novated leasing operations, the company is reshaping what customers expect from financial services: faster processes, smarter solutions, and an exceptional level of personalization.

This forward-thinking approach has enabled Metro Finance to streamline complex procedures, enhance the accuracy and fairness of credit evaluations, and deliver round-the-clock customer support that feels truly responsive. In a market where consumer trust and agility are paramount, Metro's blend of technological innovation and financial expertise positions it as a leader, not just in novated leasing but in the broader realm of digital finance in Australia.

Moreover, Metro's commitment to ethical Al use, data transparency, and regulatory compliance ensures that innovation does not come at the expense of accountability. This is especially crucial in a time when the intersection of technology and finance is under close scrutiny by both regulators and the public.

Looking ahead, Metro Finance is poised to explore even more transformative technologies from blockchain-enabled smart contracts to eco-conscious vehicle leasing solutions powered by Al. These advancements signal a future where finance is not only more efficient and accessible but also more sustainable and aligned with the evolving needs of businesses and individuals alike.

In essence, Metro Finance is doing more than adapting to change; it is actively driving the next generation of financial services in Australia. Through its seamless fusion of innovation and expertise, the company is setting new benchmarks in customerexperience, operational excellence, and responsible digital leadership. This is what the future of novated leasing and finance more broadly looks like when intelligence meets integrity.

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Transforming Financial Decision-Making:

How AI is changing Fraud Detection, Risk Management and Customer Experience in Contemporary Finance

A new era where innovation, creativity and in-depth subject expertise is being ushered in by Artificial Intelligence (AI), which is drastically altering the finance sector. This article explains how Artificial Intelligence is not only transforming traditional roles like risk management and fraud detection, but also enabling new possibilities like predictive compliance and emotion-aware analytics.

Focusing on the Rise of AI in Finance; the application of various advanced algorithms and machine learning models to assess massive datasets, simplify intricate complex processes, and enhance decision-making across the industry. The main goal of this integration is not just about technology; it is about increasing the knowledge of financial professionals by using innovation.

Transforming Risk management into Data Driven Risk Assessment and Credit Grading is another aspect of using AI to streamline the operations in the Finance sector. Conventional credit rating systems often use scarce historical data. However, Al can more precisely assess the creditworthiness by analyzing a multitude of variables including both non-traditional data sources such as social media activity and web behavior. This responsive approach enables institutions like Upstart to lend more intelligently using non-traditional data like schooling background and work habits. Artificial intelligence algorithms, like those in BlackRock's Aladdin system, scan massive amounts of data in real-time to detect shifts in the market—shifts traditional analysts might overlook. These models often offer real-time risk evaluations by enabling institutions to maximize portfolios and reduce exposure to market volatility.

The next aspect would be transforming Fraud detection and prevention by finding abnormalities and recognizing patterns. In the current scenario, financial fraud is becoming increasingly complex and sophisticated. But Artificial Intelligence Powered systems are used for advanced anomaly detection and pattern recognition to identify and find out the unusual transactions and activities. This preventive strategy would make it possible for quick reaction to any suspicious activity, reducing monetary losses, improving adherence to the regulations, and cybercrime and biometric compliances. Al can also improve cybersecurity purposes with intelligent investigation and biometric authentication. Al systems can also assess and prevent unwanted and unauthorized access by examining and identifying user behavior by protecting both institutions and customers.

The other significant benefit of AI in finance is enhancing large-scale personalization of the customer experience. AI would help the financial firms to examine the customer behavior, their preferences and sentiments to offer highly customized services. Chatbots and recommendation systems that are empowered by Natural Language Processing (NLP) offer, 24/7 customer service, personalized product recommendations, and real-time credit approvals. Moreover,



this level of personalization not just improves customer satisfaction by also builds trust and loyalty. The next aspect is to automate the routine tasks. Al driven automation would streamline the repetitive processes from repetitive tasks like data input to compliance checks, which would free up human experts to focus on more valuable tasks. This step would lower the expenses, decrease the mistakes, and improve the operational efficiency.

Promoting financial strategy innovation would be another vital aspect to discuss on. Under that forecasting the investment decisions and trading using algorithms would be an important feature to point out. Al has revolutionized the trading industry by allowing algorithmic techniques that would be helpful to evaluate market trends and patterns and perform transactions more quickly and accurately than human traders. To maximize the portfolios and generate high returns, most of the companies use Al-driven prediction algorithms. Another important aspect is decision support in real-time. Most of the AI technologies provide up-to-date insights and data-driven proof to support strategic choices to the leaders and financial advisers. As a result of this, human biases and mistakes would get mitigated and facilitating more rapid and flexible reactions to changes in the market.

As AI has become significantly embedded in finance and the institutions, they must address ethical issues and concerns related to data privacy and security. Regulatory compliance is also considered essential as AI systems need to be built to satisfy changing regulatory requirements and ensure that every consumer is treated fairly. Since AI and finance are merging experts from both the industries shall be needed. Therefore, data scientists should be able to understand financial concepts and financial professionals on the other hand should have technological literacy. Bridging this gap is most required for maximizing the benefits of AI-driven innovation.

Shaping the future of working with innovation and experience, the combination of both human knowledge and Al-driven innovation would mold the financial industry of future. As Al continues to evolve its role from automating routine tasks to augmenting human decision making and strategy has been shifted. Financial organizations will obtain a significant advantage by effectively competitive integrating AI with specialized expertise, by offering their customers safer, more intelligent and more personalized services. By the end of 2025, this fusion is expected to drive significant revenue growth by making highly personalized digital banking experiences that would address unique yet required customer financial needs. Ultimately the institutions that adapt to this collaboration would be able to redefine the future of customer engagement and operational excellence in an increasingly complex financial landscape.

In conclusion, the article can be wrapped up by saying AI is not merely a tool anymore. It is an agent that is completely changing the financial sector. Artificial intelligence would help the financial organizations to better manage risks, identify and prevent fraud and offer outstanding client experience by integrating with innovation and experience. At the same time this journey towards AI-driven finance is marked with several challenges like data partnerships and regulations, talent transformation, and ethical and societal considerations.

Financial institutions worldwide are increasingly investing in AI with projected budgets to rise by 25% by the end of 2025. This reflects a strong commitment to embracing this transformation. The future of finance would be determined by people who would accept this change, and this transformation is ongoing. In conclusion we can say that with this combination of technological innovation with human expertise and ethical governance would lead towards a smarter and more resilient financial ecosystem.

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Beyond Automation How Al is Quietly Reshaping Finance in Unexpected Ways

Artificial Intelligence (AI) is often linked to high-tech solutions, big banks, or complex trading algorithms. But today, AI is silently working behind the scenes not just in financial institutions, but in the daily decisions people make about money. From students managing monthly budgets to farmers applying for microloans, AI is quietly becoming a bridge between innovation and financial expertise.

In today's fast-paced world, finance is being reshaped by AI. What was once a futuristic concept is now a powerful tool in everyday financial tasks. From improving accuracy to speeding up processes, AI is changing the game. While many see AI as just a tool to speed up processes or cut costs, its true power lies in how it supports and enhances human decision-making. Finance has always relied on data and analysis. But with the huge amount of data available now, traditional methods are no longer enough. AI steps in to handle large volumes of information quickly and accurately, supporting financial professionals instead of replacing them.

The future of finance isn't about replacing accountants, analysts, or advisors. It's about building a new kind of teamwork between human knowledge and machine intelligence.

Al in Everyday Financial Behaviors

When we talk about finance, we often think of large companies and big investments. But one of the most important areas where Al is making a difference is personal finance, especially for young people and university students

Today, many mobile budgeting apps such as Google Pay, Apple Wallet and Mint use Al to help users track spending patterns, manage budgets, and give small but powerful financial tips. These apps analyze patterns in income and expenses and provide personalized advice. For example, if someone spends too much on online shopping or food deliveries, the Al might suggest setting daily limits or recommending a better savings plan.

While these suggestions may seem simple, they contribute to long-term financial well-being. At a time when many young people struggle with saving or managing debt, Al-powered tools act like personal finance coaches that help users build healthy financial habits without needing a professional advisor.

In this way, Al is no longer just operating in boardrooms or financial institutions. It's in our pockets, quietly guiding smarter money choices every day.

Bringing AI to Informal Finance

Most discussions on Al in finance focus on banks, insurance companies, or investment firms. However, there is an important side of finance that often gets overlooked—the informal financial sector. In countries like Sri Lanka, many people do not have easy access to formal banking services. They depend on borrowing from friends or family, informal savings groups, or credit is often based on personal trust rather than official paperwork.

This is where AI is quietly bringing innovation to areas where traditional banking systems may not reach. Many fintech companies and mobile finance platforms are now using AI to assess creditworthiness by analyzing alternative data such as mobile phone activity, transaction histories, or even social connections. Instead of using regular credit scores, these systems build trust scores from everyday behaviors and financial habits.

These Al-driven platforms help provide access to microloans, savings options, and financial guidance to people who might never qualify for a traditional bank loan.

This is a clear example of how innovation meets local expertise, making



financial services more accessible, and opening doors for many individuals and small businesses to improve their economic well-being.

By using the power of AI, informal financial services are becoming more accessible, reliable, and fair, helping bridge the gap between innovation and real-world financial needs.

Al in Ethical Finance: Fighting Greenwashing

A rising trend in finance today is ESG investing where investors consider not only profits, but also how a company impacts the environment and society. However, there is a growing issue: many companies claim to be "green" or "ethical" without proving it. This misleading practice is known as greenwashing.

Artificial Intelligence is now playing a key role in addressing this. Globally recognized companies like Google, Microsoft, and IBM have developed AI tools that help monitor and verify sustainability claims. These tools scan thousands of news articles, reports, and environmental disclosures to identify signs of false claims such as pollution, unethical labor practices, or misleading advertising.

By identifying greenwashing, AI helps investors make more ethical decisions, not just profitable ones. These build trust in financial systems, encourage responsible business, and help move the world towards a more sustainable future.

This side of AI in finance, which is ethical and sustainable investment, is something many might overlook. But it reflects how finance is not only about numbers; it's also about values and accountability.

Balancing Al and Human Judgment in Finance

While AI is powerful, it's not perfect. Financial decisions often require understanding, judgment, and human sensitivity. AI may detect patterns or predict trends, but it can still make mistakes if the data is biased or incomplete. For example, an AI system might wrongly reject a loan application because it doesn't recognize informal income sources common in developing countries, or it might suggest an investment based only on numbers, without considering real-world risks.

That's why human financial expertise remains essential. Accountants, auditors, advisors, and analysts are needed to interpret, question, and verify AI recommendations. There's also a growing need for AI ethics experts in finance, who can ensure that AI systems follow fair, transparent, and responsible practices.

So, while Al is transforming finance, it must work alongside humans, not without them. This collaboration between innovation and expertise is what truly builds a smarter financial future.

Artificial Intelligence is changing the way we think about finance, but not in the way we usually imagine. It's helping students manage expenses, giving loans to people without bank access, fighting greenwashing, and supporting ethical decisions.

These are not just technical changes; they are human focused changes, made possible by a smart mix of data, innovation, and expert judgment.

As students and future professionals, we don't need to become AI engineers. But we must become AI-literate, so we can use these tools wisely and responsibly. The goal is not to replace human finance professionals but to equip them with better tools to make more informed, fair, and effective decisions. The bridge between innovation and expertise aren't just made of machines. It's built through learning, trust, and teamwork.

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What the Rich Hear in Silence

How AI Lets the Wealthy Read What Others Miss

Techniques are often imagined as being one primarily on Wall Street, crunching numbers, making trades in milliseconds, or doing very quick and flash moves in stocks. And to some extent, that's true. But there's another side to artificial intelligence in finance that is quieter, calculated, and more powerful. It's not about what it sees; it's what it doesn't see-that is to say, what it aided people in recognizing in that silence.

This is where the ultra-rich play. It is not about nice tools; it is about asking better questions.

Listening to What's Missing

Most people look at what's there: earnings, reports, ratios. But those at the top—the family offices, hedge fund veterans, and old-money investors—have learned to look for what's not there. All is used by them not merely to find a pattern in the data but to detect meaning in its absence.

The Germans have a word for this kind of thinking: zwischenraumdenken. It literally translates to "thinking between the spaces." It means that one looks at empty spaces as hiding some sort of clue. And AI helps to give life to that mindset, scanning millions of data points, not for what is obvious, but for what is subtly out of place.

For example, AI might detect that a typically busy shipping route has gone quiet. Or that a CEO of a company suddenly stopped using optimistic language in earnings calls. Or that a central bank of a country has slightly changed its sentence structure. These are the whispers that the rest of us simply do not hear.

The Double Life of AI in Finance

And here's the troubling part: most people assume that AI in finance ensures a level playing field. But in actuality, it could be doing precisely the opposite. There is a world where AI gives someone a little edge and then there is a world where AI gives a few people a disproportionate advantage.

One investor uses AI to compare stock trends at a basic level, while another simulates the behavior of twelve central banks over the past twenty years from slight and almost undetectable behavioral cues. One is helpful. The other is near psychic.

It's not even just about the money. There is access, customization, and depth. Those who do gain from AI in finance do not only use it but train it, mold it, and fine-tune it as a second nature to them. Such AI does not reach an app store. It's quietly built behind closed doors.



Beyond the Numbers: Reading the Room

The term l'autre réalité in French means, "the other reality." And that is what it truly is. While the media churns out news and most investors are left scrambling to respond, the wealthy elite start two steps ahead. Their Al does not simply observe the stock market; it is endowed with the perception of a world filled with nuance, emotion, and hidden subtext.

This means sometimes the best set of signals in the world do not look financial at all. Spotting an unfavorable or favorable trend in the sudden sales of a book, the celebrity endorsement of a new sneaker fragrance, or subtle changes in satellite pictures of factory sites: these all can point toward opportunity or danger.

In Greek, kairos means the perfect time to act. So, this is what the best Al is helping them find not when, but why.

The Ethical Dilemma

Is this unfair? Is it genius?

There is something evil genius about how the super-rich are deploying Al. They have elevated it above a mere spreadsheet. Al has become their financial shaman who guides with utmost calmness through the dark of uncertainty.

We shouldn't try to make villains of these people because they're ahead of us. Instead, we should try to help everyone else catch up.

We need to make these tools and the thought process behind them more accessible. Teach people to think like this rather than just what buttons to press. Because the real power of Al in finance isn't in just having it; it's in knowing how to ask it better questions.

Final Thoughts: Learning to Hear the Silence

The story is actually not about the world of money, but about consciousness. It says: that the loudest signals are not always the important ones; sometimes, as long as one understands, silence may say everything.

Rich people have discovered this secret. Then came Al. With it, they have heard what many do not. Maybe it is time for the rest of us to begin listening as well.

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AI Financial Revolution

A Journey from Automation to Intelligence



Where innovation meets expertise

The past few year have see n Artificial Interligence (AI) revolution nearly every industry, and finance is one such field. The intersection of AI and finance is a dynamic space where technology-driven expertise is enabling new ways to transform the financial industry like never before. This article examines how AI is reshaping finance emphasizing the role of human expertise in guiding this transformation towards meaningful and ethical advancements.

The history of AI in finance

Al has moved from the realm of the unknown to becoming a valuable tool in financial systems. It started with simple applications like automated teller machines (ATM) and behavior detection tools and has gone

on to sophisticated applications like predictive analysis, algorithmic trading, credit rating, and personalized financial planning. They are fueled by the massive amount of information generated in the money market and increasing strength of Al in processing and interpreting data.

Banks use Al to streamline operations, enhance customer experience and make informed decisions. For instance, back-office functions such as document verification and reconciliation have been automated to a large degree, conserving processing time and operational costs. Moreover, Al based insights enable companies to forecast market trends and react accordingly, thus staying competitive in an evolving landscape.

Key Innovations in Financial AI

- Algorithmic Trading
- Risk Management
- Personalized Banking
- Lending and Credit Scoring
- RegTech (Regulatory Technology)

Algorithmic Trading

Al-driven algorithms can track market trends and carry out trades more quickly and efficiently than humans. These systems employ machine learning algorithms that predict market trends and make decisions in milliseconds based on facts, providing the traders with a competitive edge. High-frequency trading systems, for example, employ Al to profit from tiny differences in prices that last only fractions of a second. This level of precision and speed has transformed trading strategies globally.

Risk Management

Al improves risk analysis by spotting patterns and anomalies in vast datasets that a human analyst may not spot. This is extremely useful in such fields as credit risk, fraud prevention, and cybersecurity. Predictive analytics from Al enables banks and other institutions to predict potential risks and take action on them before they can become significant problems. Machine learning algorithms learn from data continuously, ensuring that risk models remain up to date in a dynamic market environment.

Personalized Banking

Financial institutions can offer tailored services to customers with the help of Al. Virtual assistants, chatbots, and Al based recommendation systems give rise to smooth and tailormade user experience, resulting in customer loyalty. For instance, Al-based financial planners can analyze one's spending pattern, investment preferences, and risk tolerance to offer customized financial planning. Personalization, in this case, not only raises customer satisfaction but also generates new revenue streams for financial institutions

Lending and Credit Scoring

Traditional credit-scoring systems normally apply small data samples rigid conditions, denying credit to individuals who have non-conventional credit backgrounds. Al, on the other

hand, applies different data sources such as social media usage, online activities, and transaction records to create fuller and more precise credit profiles.

This is likely to grant credit to underserved groups without compromising risk management.

Reg Tech (Regulatory Technology)

Al simplifies compliance with sophisticated regulatory requirements by automating processes like reporting, monitoring, and risk assessment, saving financial institutions costs and time.Al- powered regulatory technology can screen transactions in real time for

effective identification of likely compliance issues before they become deep- rooted, enabling institutions to stay ahead of current changing regulations. Automated processes optimize resources so that organizations can use them more wisely on strategic initiatives rather than on administrative tasks.

The Role of Human Expertise

While AI brings in efficiency and accuracy, human expertise cannot be substituted in the financial sector. AI systems, no matter how complex, require:

OversightInterpretationAdaptation

Oversight: Experts argue that AI models remain within ethical and regulatory boundaries. This includes looking out for unintended biases and ensuring that algorithms adhere to established industry standards.

Interpretation: Human analysts provide context to insights drawn by AI so that decision-making is better-informed. For instance, while AI might be able to identify trends, human intelligence alone is able to comprehend the wider economic, political, and social implications of the trends.

Adaptation: Experts update Al systems to cope with evolving market conditions and fluctuating business needs. This entails retraining models, incorporating fresh data sources, and recalibrating algorithms to ensure they remain current and precise.

The harmony between artificial and human intelligence guarantees that innovation serves the interest of the industry and shuns risks associated with over-reliance on technology. Banks that prioritize this balance are better placed to manage the complexities of a rapidly changing world.

Challenges & Ethical Challenges

Further, there are challenges that arise when deploying AI for Finance:

Data Privacy
Algorithmic
Bias Job Displacement
Transparency

Data Privacy: Sensitive finance data requires unquestionable security from data breaches. Financial institutions need infrastructure and people to secure their customer's data, which requires money for encryption, secure data centers, and access controls to have a secure customer repository.

Algorithmic Bias: All is trained on data that must be continuously changed and is subject to bias which, in turn, can potentially lead to unjust outcomes. An example of this is the concept of discrimination in the lending space which is a direct by-product of training on data that has a history of discrimination. Hence, financial institutions must remain vigilant in isolating the best data, auditing the data on a regular basis, and creating fairness policies in their data.

jobs in the finance sector, and the workers need to be upskilled or reskilled. It is, therefore, up to institutions to incentivize their workers with education and career development programs to facilitate that transition.

Transparency: Al systems are "black boxes" and become excessively difficult to justify when describing how it arrived at any conclusion. There must be transparency to build trust with the stakeholders and regulatory transparency.

These challenges require the collaboration of policymakers, finance experts, and technologists to create frameworks to ensure ethical and proper use of Al. Regulators can help to create rules and guidance to ensure that innovation and accountability go hand in hand.

Future Perspective

The potential of AI within the context of finance is enormous. As other forms of technology develop, such as quantum computing, blockchain integration, and more powerful AI models, these will continue to shift the face of the industry. For instance, quantum computers will perform advanced portfolio management and risk assessment due to their ability to solve optimization problems that are impossible for classical computers.

Moreover, Al blockchain technologies would increase the security and transparency of monetary transfers, significantly lessening the chances of fraud and facilitating cross border transactions. The application of such designs will not only improve efficiency levels but also create avenues for potential innovative technologies.

But at the same time, economic growth that fully supports innovation without constraints puts all emphasis on technological advancement at the expense of guidance from seasoned experts in the industry. For banks, the ethical side of Al use needs to be given close attention, which will guide enhanced innovations directed at societal value systems. With the continuous culture of learning and collaboration, the banking sector can harness the power of Al and mitigate the risks that come with it.



Conclusion

Without a doubt AI is an irreversible transformation of the financial system and is providing scalable "doing" that enhances productivity and efficiency, improves customers' purposeful experiences, and allows room for new forms of and satisfaction with decision-making. However, its value must be embraced holistically in conjunction human capacities and abilities to allow for AI to realize its maximum benefit. A successful engagement would be for the financial services industry to pair frontiers of experience, innovation, and ethics, adequately positioned to gain maximum benefit from and consequentially offering the promise of a more efficient, cheaper, a nd resilient future. As we find ourselves at the threshold of a new world of finance, it is the human wisdom in association with AI that will mark the progress of that evolution. By effectively integrating the two, financial institutions will be positioned to navigate the angst of the uncertainty of an increasingly complex world, thereby generating sustainable prosperity and development for all stakeholders.

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Smarter Together

How Al and Humans Are Shaping the Future of Finance

Getting a loan approved in minutes, tracking your spending in real time, or getting smart investment tips with your morning coffee, this isn't a scene from a sci-fi movie. It's the reality of modern finance, powered by Artificial Intelligence. From detecting fraud to managing portfolios, Al is quietly but powerfully reshaping how we interact with money.

But no matter how intelligent these systems become; they still need human input. Ethics, expert judgment, and a sense of responsibility are what turn fast decisions into fair ones. Behind every Al tool is a team of professionals ensuring it serves people, not just profits.

In this article, we explore how Al is revolutionizing finance and why the most effective solutions emerge when technology and human expertise work together.

The Rise of Al in Finance

Over the last decade, Al has moved from experimental tech to a vital tool in finance. What once started as simple automation has grown into learning systems that adapt and make smart decisions. Banks and financial firms now use Al to boost speed, reduce errors, and offer highly personalized services.

Take fraud detection. Al-powered systems can scan thousands of transactions in seconds, spotting anything unusual almost instantly. This has helped banks cut fraud-related losses by billions. JPMorgan Chase, for example, uses Al to monitor its entire payment network and flag suspicious activity in real time.

Customer service has also seen major upgrades. Chatbots now handle millions of queries, answering questions 24/7. This frees up human agents to solve more complex problems and build stronger client relationships. Meanwhile, Al-driven credit scoring models are making financial services more inclusive by analyzing alternative data like mobile phone payments or

utility bills. The change isn't just about speed; it's about intelligence. Al tools detect patterns and make predictions that humans might miss, helping financial institutions stay ahead in a competitive market. As Al continues to evolve, it's no longer optional; it's becoming the backbone of modern finance.

Why Human Expertise Still Matters

As powerful as AI is, it's not immune to flaws. Algorithms are smart tools, yes, but they still lack context, judgment, and emotion. In finance, where trust, regulation, and long-term thinking matter, human insight remains essential.

Consider algorithmic trading. Al can execute trades faster than any human, but it's the analysts who decide the overall strategy. They assess global events, read between the lines of market signals, and adjust for risk. Al can flag a suspicious transaction, but a human still has to make the final call.

There's also a bigger issue: ethics. Al models learn from data, and if that data is biased, their decisions will be too. For instance, if historical lending data excludes certain groups, Al might continue that unfair trend. It takes human oversight to spot and correct these blind spots.

Professionals also bring emotional intelligence into the mix, something Al can't mimic. A financial advisor understands a client's fear during a market crash or their long-term goals when planning for retirement. These are things that require empathy and communication, not just calculations. In short, Al supports decision-making, but it can't replace the human touch that makes finance trustworthy and fair.

Ethical Concerns and the Risks of Over-Reliance on Al

While Al opens new doors in finance, it also brings serious ethical challenges. One major concern is bias. Al systems learn from historical data, and if that data reflect inequality, the technology can



unintentionally continue those patterns. For example, some AI credit systems have been found to favor certain zip codes, often excluding low-income or minority communities.

Transparency is another issue. Many AI models operate as "black boxes," making decisions that even their creators can't fully explain. This is a problem in finance, where people deserve to understand why they were denied a loan or flagged for fraud. Regulators in the EU and the U.S. are pushing for "explainable AI" in banking to maintain trust.

There's also the risk of losing human skills. As machines take over routine tasks, professionals may grow too dependent on automation. This could weaken critical thinking and lead to blind trust in algorithmic decisions. A recent example is the 2020 market flash crash, where automated systems made rapid trades that caused sudden drops, before humans had a chance to respond. It was a wake-up call; over-relying on Al without human backup can lead to real-world consequences. The key is balance. Al should be used as a tool to enhance judgment, not replace it. Ethics, fairness, and human oversight must always remain part of the process.

The Future of Al in Finance - Opportunities and Challenges

Looking ahead, Al's role in finance is set to grow even more. Tools like predictive analytics, natural language processing, and real-time forecasting are pushing the boundaries of what's possible. For instance, robo-advisors like Betterment and Wealthfront are using Al to tailor investment strategies based on users' risk tolerance, goals, and behavior.

Banks are also using AI to improve customer experience. HSBC recently adopted AI to detect voice fraud, while Mastercard is using it to analyze transactions and stop cyberattacks before they happen. These innovations are making services faster, safer, and smarter.

But with this progress comes responsibility. New technology often moves faster than regulation. Financial institutions and governments must work together to create policies that ensure AI is used ethically. How do we protect privacy when AI systems process personal spending data?

How do we make sure algorithms stay fair as they evolve?

Another challenge is job displacement. While Al won't replace every role, it will change how work gets done. Routine tasks will be automated, and future finance professionals will need skills in data science, ethics, and critical thinking. Education and reskilling will be essential.

Ultimately, the future of finance isn't just about machines. It's about partnerships where Al handles speed and scale, and humans provide wisdom and care. Together, they can drive innovation while keeping trust and accountability at the center.

Artificial Intelligence is no longer just a futuristic concept in finance; it's a present-day force that's reshaping the way we save, invest, and spend. From boosting efficiency to unlocking access, Al is bringing powerful change to the industry. Even tech leaders like Elon Musk have warned that without the right checks and balances, Al could lead us down a risky path. That's why human expertise still matters to ask the right questions, ensure fairness, and guide innovation responsibly. The future of finance doesn't belong to Al or humans alone. It belongs to both, working together to build smarter, more inclusive systems that serve everyone.

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Can Algorithms Truly Replace Human Intuition?

Finance has always been a mix of numbers and nuance, quantitative analysis tempered by the gut instincts of seasoned investors. But as artificial intelligence infiltrates trading floors, risk assessments, and financial forecasting, a critical problem emerges: "Can algorithms with their cold precision replicate or replace the irreplaceable spark of human intuition?"

The answer isn't binary. All excels at processing vast datasets and identifying patterns invisible to humans, yet stumbles in ambiguous, high-stakes scenarios where instinct, ethics, and contextual wisdom matter most. This article explores the limits of All in finance, the enduring value of human judgment, and the rise of a "Hybrid Future" where both forces collaborate to redefine the industry.

Al Dominance.

- **Speed, Scale, and Predictive Power**: Al processes millions of data points in milliseconds, enabling.
- Algorithmic trading: Approximately 70% of U.S. share trading is conducted by AI, a 2021 JPMorgan report stated.
- Risk Assessment: -Machine learning algorithms also predict loan defaults 20% more effectively than traditional scoring (McKinsey, 2020).
- Fraud detection: Al spots anomalous transactions in real time, reducing false positives by 30%.

Case Study of the Quant Revolution: -Hedge funds like Renaissance Technologies owe their success to Al-driven strategies. In 2017, their Mediumistic Fund generated \$10 billion in returns by exploiting market inefficiencies invisible to human analysts.

The Limits of Al

Black swans and Broken Models: -Al relies on historical data, but crises like the 2008 crash and the COVID-19 pandemic defy patterns. Human trades, drawing on experience and macro awareness, often pivot faster

Ex: -During the 2008 crisis, AI models failed to predict the mortgage collapse while some investors sensed systematic risks through market "Gut feelings". In 2020, human fund managers adjusted portfolios for pandemic volatility faster than rigid algorithms.

The Qualitative Gap

Al struggles with the following: Market sentiment: -Fear and greed drive prices, but algorithms misread sarcasm in NEWS or cultural nuances in social media. Ethical tradeoffs: -Should an Al prioritize profit over a client's long-term well-being? Humans weigh morality, machines optimize metrics.

Creative strategies like Warren Buffett's value investing- guided by decades of experience and instinct- display the kind of wisdom that cannot be replicated even by the most advanced algorithms.

Behavioral Finance

- When Human Defy Logic: -Behavioral finance proves investors aren't rational. Cognitive biases like below
- **Herding** (Trends like meme stocks like GameStop)
- Overconfidence
- Loss Aversion

Al can identify these patterns, but can't feel them. For instance, during the GameStop rally, algorithms flagged the stock as overvalued, yet human traders fueled the frenzy.

The Empathy Deficit: -Al lacks emotional intelligence. In wealth management, clients often need reassurance during downturns, a role robots can't fulfil. As fintech expert Mark Andreessen Notes, "Venture capital won't be automated because it's about reading people their resilience, creativity, and psychological makeup."

But, as human and machine systems interweave, there are conflicts that occur-not just in intention, but in principle.

The Alignment Problem. (When Al and Human Values Clash)

- **Optimization vs Ethics,** Al follows its programming, which can lead to
- Algorithmic bias: -Loan approval discriminates against marginalized groups.
- **Explanatory: High-frequency** trading bots create artificial volatility for profit.
- **Fixing the Flaws,** Solutions include: Constitutional Hardcoding ethical rules (anti-discrimination clauses), Human in the loop systems: -JPMorgan's LOXM AI suggests trades but defers to humans for final approval.

The Hybrid Future (augmenting, not replacing humans)

Collaborative Models in Action Robo Advisors + Human Planners: - Betterment combines algorithmic portfolios with live financial advisors. Al-powered FP and A: -Philips reduced forecasting time from days to 3 hours using Al, but humans interpret the "Why" behind trends.

The Winning Formula. Al handles the "What":
-Data crunching, risk alerts, repetitive tasks.
Humans handle the "Why": - Strategy, ethics,
and emotional intelligence.

In conclusion, AI won't replace intuition; it will refine it. The future belongs to leaders who harness AI's speed while preserving the irreplaceable human skills of creativity, empathy, and moral judgement. As Abby Sen, a tech strategist, argues, "The warmth of human judgement cannot be replicated by algorithms."

In finance, where trust and adaptability are currency, the next level of financial savvy is not only in the fusion of AI with human judgment, but in continuously adapting the balance between them according to market cycle, asset type, or client segmentation-a configuration we might call 'adaptive hybridity.

Artificial intelligence is revolutionizing finance, reshaping how decisions are made and trades are executed. While AI offers unmatched speed, analytical depth, and pattern recognition, it struggles with the human elements of intuition, ethics, and adaptability.

Al's Advantages: Automated trading dominates the financial markets, with Al managing 70% of U.S. stock trades by detecting patterns beyond human perception. Machine learning has enhanced loan risk assessments, increasing accuracy by 20%, and fraud detection has become more precise, reducing false alerts. Al-driven hedge funds, such as Renaissance Technologies, exemplify their potential, with the Medallion Fund generating \$10 billion in returns by leveraging unseen market inefficiencies.

Where AI Falls Short: Despite its computational power, AI falters in unpredictable crises like the 2008 financial crash or the COVID-19 pandemic. It depends on historical data, which can fail in rapidly evolving situations. AI also misreads market sentiment - fear, speculation, and investor emotions - due to its inability to interpret sarcasm, cultural nuances, or human psychology. Ethical considerations are another challenge; unlike humans, AI cannot weigh moral dilemmas such as prioritizing long-term financial wellbeing over immediate profit.

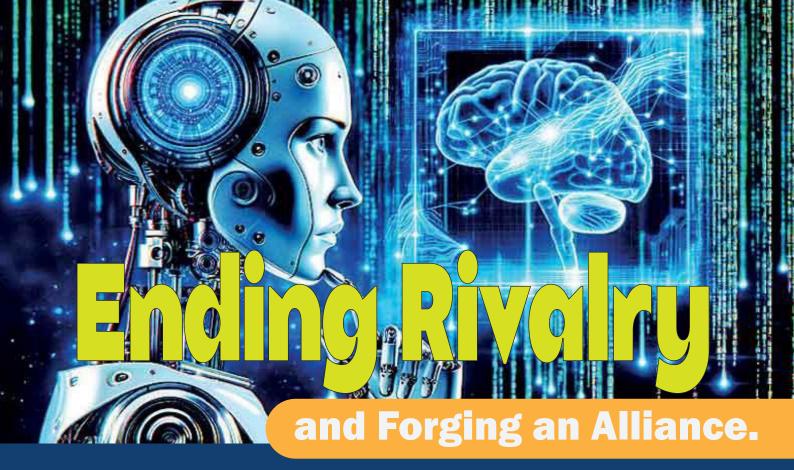
The Role of Human Intuition: Market behavior is often irrational, influenced by biases such as herding (as seen in the GameStop stock surge), overconfidence, and loss aversion. Al can recognize these trends but lacks the emotional depth to navigate them. Human investors possess instinct and experience, adjusting strategies based on psychological and economic shifts. In wealth management, the ability to comfort and guide clients through downturns is irreplaceable - a skill Al lacks.

Aligning AI with Ethics: Al operates within predefined algorithms, sometimes leading to biased financial decisions, such as loan discrimination or artificial market volatility created by trading bots. The solution lies in ethical hardcoding, ensuring fairness in Al-driven financial models, and maintaining human oversight in critical decisions.

The Future: A Hybrid Approach: The most effective financial strategies will merge AI efficiency with human expertise. Robo-advisors, like Betterment, integrate machine-driven portfolio optimization with human financial planning. Al-powered forecasting at Philips has accelerated trend analysis, yet human experts remain essential to interpret underlying causes.

Al is a tool to enhance human insight, not a substitute for it. The best financial plans will use Al's speed and analytical capabilities while maintaining the indispensable human qualities of morality, empathy, and creativity. The future belongs to those who harness Al's computational power while preserving human creativity, ethical judgment, and emotional intelligence. The ideal financial model embraces both— leveraging Al's speed while retaining the wisdom and adaptability unique to human decision-makers.

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Introduction

Entering higher education often feels like navigating a high-stakes landscape, with constant warnings on choosing the right path to avoid being obsolete due to Artificial Intelligence. Rather than deem it as a threat, a wiser decision would be to integrate it and thrive. This article explores the dimensions in which Artificial Intelligence and Human Intelligence interact constructively, showing potential in forging a collaborative future within the field of finance.

Upsurge of Artificial Intelligence

Artificial Intelligence has modified every industry. Its integration in the field of finance has swiftly enhanced efficiency and productivity across various operations. The alliance between Al and human expertise has enabled algorithms to manage repetitive and data-intensive tasks, allowing experts to focus on critical strategic roles, leading to a boost in yield.

For instance, in fraud detection, institutions like banks (For example, HSBC) use ML and Al to analyze in real time and detect spending patterns that counter the usual and alert customers immediately to authenticate the transaction, thereby avoiding

dissatisfactions faced by users. It was stated that Mastercard analyzes 160 billion transactions annually, identifying fraudulent activities within fifty milliseconds.

Furthermore, the rise in AI in finance is evident as studies show that adoption of AI in finance departments has escalated to 58% in 2024, which is a 21% increase compared to 37% in the year 2023.

Indispensable Human Intelligence

Concerns about job displacement remain prevalent as AI has indisputably taken over entry level job positions like bookkeeping due to its affordability, accuracy, and speed.

However, strategic, and decision-making roles are irreplaceable

as Al lacks contextual awareness and moral judgement considering the current state of technological development. It can be argued that Al could manage decision making through its advanced algorithms, however its reliability with respect to being a standalone decision maker is controversial, as it is not dependable enough to be utilized singlehandedly.

This proves that human intelligence cannot entirely be eliminated and replaced by AI and that rather than contending technological evolution, using it in conjunction can result in better outcomes.

Constructive collaboration

Businesses generate vast amounts of data which include financial reports, statistics, and predictions. Artificial Intelligence is programmed for technical, data-oriented, and repetitive tasks. Thus, fragmented, and unstructured data require immediate human intervention to decode and transform it into a set of useful information applied in decision making.

Al as a Consulting ally

Being engaged in the field of finance comes with a substantial workload related to critical, time sensitive decision regulation and frequent market analysis. Businesses are heavily dependent on specialists to provide accurate and immediate solutions for problems arising and for swift actions to be taken to ensure losses are not made. There could be occurrences where the overbearing workload leads to ineffectiveness, to address this issue, Al models could be developed to assist the experts in the field.

The AI models could study the workflows, decision-making logic, and analytical skills of financial experts, amplifying daily critical tasks, while ensuring smooth flow and

productivity. Through the observed behavior and reasoning,

Al can function as a support system offering real-time data and insights which can strengthen the consultation. This solution can effectively minimize pressure on human experts and improve the overall quality of the service provided.

Developers could amalgamate Neuro-fintech to create this prototype to ensure smarter financial support systems. This symbiosis of neuroscience, Artificial Intelligence and financial technology can leverage insights into how the brain works in the context of decision making and risk assessment. It is programmed to decode brain signals of professional traders during situations of high confidence or uncertainty thus Al can evaluate, identify patterns, and align decisions according to the dynamic nature of the market.

Behavioral finance is the foundation of Neuro-fintech that expands the theory by analyzing why people make certain financial choices using psychological data. It is examined using biometric sensors and neuroimaging, examining a person's heart rate, vocal changes, and eye movement to predict and tailor their decisions in response to physical and mental shifts. This Integration of emotional awareness could improve client outcomes as emotions affect decisions in a way that is inexpressible. By actively developing this aspect the industry has potential to reach great heights, elevating the future for Al systems in consultation.

A real-world example of it is the experimental project done by 'inait' a company based in Switzerland that joined hands with Microsoft to develop AI models that mirrors brain reasoning to enhance trading algorithms and provide consultation through AI based on brain signals.

Although Neuro-fintech is an advanced concept, it is still in its preliminary stages and comes with its own set of criticisms. Technically, as it is still developing, there tend to be doubts on its accuracy thus constant improvements are required before releasing it as a wide scale project. Furthermore, rising concerns regarding ethics are evident as such sensitive data has vulnerability of being misused for profits.

Al coalition

To build more on this concept, envision a hypothetical case scenario where developers assemble multiple AI models to underpin specialists in decision making. It could be built upon observations of different thought processes of experts that possess distinct levels of analytical skills and cognition. The model can learn from past decisions, outcomes, and evolve through expert assessment, becoming advanced over time. The output could be evaluated and executed with the intervention of humans. Through this the models could mimic and debate upon various predictions, suggestions and produce innovative strategies to tackle frequent issues.

Transparency and Accountability

As Al increasingly takes charge of complicated responsibilities in finance, experts must ensure that transparency and ethics are protected. This could be in taking accountability for errors that occurred due to Al-generated information or regarding notifying clients when Al is used to project specific financial data. Financial advisors should be responsible in educating and informing their clients ahead of schedule on the resources used and make sure that the clients approve the source of information, creating trust between the two parties. Without proper transparency the tool utilized could undermine certitude.

Al as a regulatory framework

If we take a step further, AI models that monitor ethics could also be programmed. By feeding in company morals, standards, and frameworks the model could be trained to flag violations. For instance, an AI assistant which alerts if any ESGs or company values are neglected and functions as a regulatory service to prevent any breaches. This can positively impact the company's image and position it as a brand which upholds ethics whilst encouraging innovation instead of hindering it.

Conclusion

In an era where Artificial Intelligence is considered a threat, only partnership can initiate better opportunities. Al brings power, precision, and speed while humans contribute ethics, empathy, and intuition. By combining them, we can create a powerful weapon of efficiency and productivity.

As we look into the future, within the finance industry, success will be guaranteed to those who learn to collaborate with the expertise wisely. Combining machine efficiency with human judgment to make straightforward, dependable, and accurate decisions. As we steer the growing landscape of finance, we can reflect on what makes a solid financial decision. Would it be dialectic, experience or empathy? Will Al ever achieve the poise of it all? The economy will be impotent if we keep choosing sides thus it is time to set aside differences and co-create better decisions.

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and Finance Where Intelligence Meets Empathy

Artificial Intelligence isn't here to replace the human touch. It's here to elevate it. Welcome to the new era of finance, where logic meets empathy, and code meets conscience.

There was a time when finance meant late nights hunched over paper ledgers and spreadsheet grids. Decision-making was as much about intuition and gut feeling as it was about math. Then came algorithms and automation. Now, we have entered a new era, where Artificial Intelligence (AI) is not just a support system but a decision-maker, a predictor, and a partner. We are not merely observing technological change; we are witnessing a tectonic movement in the nature of finance at its very basis. The invisible hand of the market now responds with machine learning accuracy and natural language processing contextual awareness. This shift is not about removing human beings from the equation; it is about scaling what we do best, such as human creativity, emotional intelligence, and ethical judgment, with Al's speed and scale.

From Gut Instincts to Patterned Precision

For decades, traders relied on gut instinct, experience, and guesswork. Now, they rely on neural networks. These computer models are trained on behemoth, heterogeneous databases, economic statistics, social media postings, consumer comments, and shipping routes. In essence, Al has restructured the way we analyze information. It doesn't just crunch numbers faster; it thinks differently. It looks beyond isolated data points and finds correlations humans might never consider. Whether forecasting stock movements or detecting fraud patterns, Al has moved us from reactive strategies to predictive planning. Markets no longer hinge solely on financial signals. Al systems now assess how a geopolitical event, a climate anomaly, or even a viral tweet can influence asset behavior. It is an evolution from charts and speculation to contextual, real-time insight.

Rethinking Risk: The Crystal Ball Gets SmarterRisk management has always been the financial sector's safety net. Today, Al is weaving that net tighter and more intelligently. Where traditional models rely on historical trends and static algorithms, Al adapts, constantly learning from real-time data. Banks are employing reinforcement learning systems that simulate millions of scenarios to determine the most strategic course of action. Insurers are using AI to evaluate lifestyle behaviors and digital footprints rather than relying solely on demographic stereotypes. This shift has made risk assessment more individualized and fairer. For instance, a low-income cyclist with clean digital behavior may now qualify for better insurance rates than a high-net-worth individual with a risky online profile. Al can spot what humans often miss without prejudice. Still, Al doesn't eliminate risk; it just makes it more visible, more traceable, and in many cases, more manageable.

Financial Empathy: Inclusion Through IntelligenceTraditionally, finance has been limited by its access barriers. Entire populations lacked credit scores, formal jobs, or documentation and thus, access to capital. Al is changing that. In parts of Southeast Asia, Al-driven lending platforms analyze mobile usage patterns to issue microloans to people with no banking history at all. In Latin America, chatbots in regional dialects are educating farmers about financial options. Across Africa, Al and blockchain are increasing transparency in remittances and international aid. By recognizing signals that traditional finance overlooks, AI is giving a voice to the underserved. It's not just financial innovation; it's financial empathy.

Collaboration, Not Competition: Humans and Machines UnitedPerhaps the worst fear of the financial industry was that Al would automate the jobs of human labor. But that fear is giving way to a new truth: "Collaboration, not Competition". Al excels at pattern recognition, outcome simulation, and anomaly detection. But it lacks emotional intelligence, cultural understanding, or ethical reasoning. That is where humans enter the picture. The future of finance is for individuals who can read Al reports, apply ethical reasoning, and build trust. It is not a matter of who is the brightest; it is about knowing how to leverage each other's best strengths.



The Challenges: Bias, Opacity, and Fragility
No story of progress ever happens without looking at the pitfalls. Al is no better than the data on which it is trained. If that data is discriminatory, then the model may be perpetuating discrimination, even unconsciously, an Al system used for lending may deny a loan simply because an applicant is from a traditionally underprivileged neighborhood. Transparency is also an issue. When a machine writes a billion-dollar trade or rejects a life-altering loan, can we really see why? Al systems tend to be "black boxes" whose logic is hard to audit.

Then there is fragility. At the time of the COVID-19 pandemic, various AI models broke down because they could not handle unseen global shocks. They were trained on patterns of a world that no longer existed. These are not arguments to abandon Al development; they're calls to develop it responsibly with oversight, regulation, and a clear ethics framework.

Re-Skilling for the Al EraAs finance evolves, so must its professionals. Excel spreadsheets and risk formulas are no longer enough. The next generation of financial leaders are learning Python, studying data science, and mastering model governance. Joint degrees in finance and artificial intelligence are becoming commonplace in business schools. Compliance officers now attend AI ethics workshops. Portfolio managers train in behavioral economics. The most successful finance professionals will be bilingual, fluent in both money and machine

The Road Ahead: What the Future Could Look Like Imagine a world where Al provides real-time ethical screening on investment platforms, alerting you if a stock contradicts your values. Imagine a tax system where every purchase is automatically optimized for your deductions. Imagine Ál-powered advisors that know your goals, habits, and risk appetite, offering personalized financial guidance that evolves with your life. This is not speculation; these technologies are already in development. The challenge is not building them; the challenge is ensuring they are built right with fairness, transparency, and humanity.

Building the Bridge Between Logic and Trust

At its best, finance is not just about profit; it is about trust, responsibility, and transformation. Al is not a replacement for human finances; it is a bridge between data and empathy, efficiency and fairness, algorithms and ethics. But like any bridge, it must be built carefully. We must invest not just in Al tools, but in inclusive design, ethical training, and clear regulation. Every policy, every innovation, every line of code is a brick in the future of financial systems. It is a collective duty of technologists, regulators, economists, and educators to ensure that what we build serves everyone. Because the goal is not just to make finance faster or smarter; the goal is to make it better.

About the Author

Chamodi Vishwadeepanee is a finance and technology writer focused on the intersection of ethics, innovation, and inclusion. Passionate about using storytelling to explore the future of smart systems, she believes that Al's greatest power lies not in replacing us but in making us better at being human.

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In a world where milliseconds can move millions, Artificial Intelligence is no longer a future disruptor. It is the financial world's present game-changer.

How Is AI Reshaping the Financial Landscape?

Ten years ago, spreadsheets, late-night meetings with coffee-fueled analysts, and intuition were the mainstays of financial decision-making. These days, sophisticated algorithms that have been taught to think, learn, and adapt make the same decisions in milliseconds instead of humans. As the silent companion in boardrooms, financial firms, and customer service desks, artificial intelligence (AI) has subtly replaced reactive decision-making with predictive accuracy.

Al has changed the game, from analyzing millions of transactions to identify fraud in real-time to using virtual assistants to provide customers with highly customized financial advice. The true question now is not whether Al is changing finance, but rather to what extent, as financial institutions compete to stay ahead.

What Drives the Integration of AI in Finance?

The increasing complexity, speed, and data-driven needs in financial decision-making are the reasons behind the gradual use of AI in finance. With consumers demanding highly customized services and marketplaces changing in real time, traditional tactics are no longer sufficient. Al is a force multiplier that analyzes massive databases, identifies trends, enables faster, smarter decision-making than ever before.

By reducing uncertainty through machine learning and predictive analytics, artificial intelligence (AI) improves decision theory by making clearer how judgements are formed when faced with uncertainty. Financial firms now utilize AI to foresee outcomes, including risk assessment, fraud detection, and investment forecasts, in addition to automating procedures.

"Al is no longer a tool, it's a partner in decision-making" -**Christine Lagard**

Can Al Outpace Fraudsters in the Digital Age?

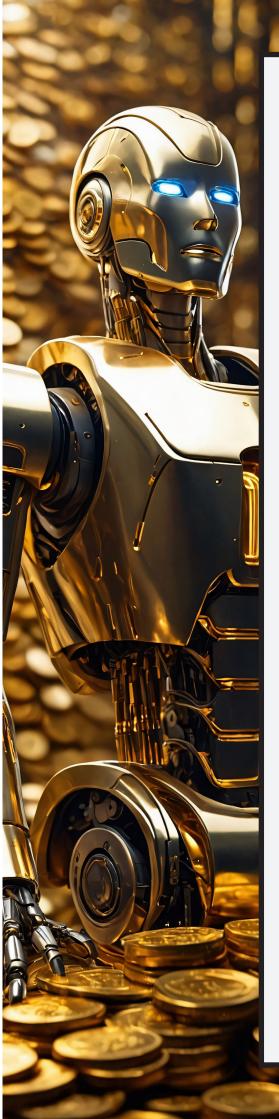
Al is quickly taking over as the cat that never sleeps in the game of digital fraud. Financial institutions are using Al not only to identify fraud but also to predict it as cybercriminals become more skilled. Conventional fraud detection systems mostly use rule-based approaches, which frequently fall behind new scam tactics. But Artificial Intelligences is able to learn and adjust.

Al systems can track millions of transactions in real-time using machine learning and neural networks, spotting odd trends that could indicate fraud. Al systems immediately identify abnormalities, such as an unexpected transaction in a foreign nation or behavior that deviates from a user's spending patterns.

Consider Mastercard as an example. Using artificial intelligence (Al), its decision intelligence system evaluates past transactions and compares them to present behavior in milliseconds to determine the risk of fraud. This makes it possible to avoid damage before it happens and to send proactive alerts.

Al sees patterns we can't, faster than we blink, Al develops rather than simply reacts. The algorithm learns to identify new strategies with each fraudulent attempt. Al's ongoing learning reduces error margins and improves response times, which is a crucial benefit in the quick-paced world of digital banking. Fraud





How Can Al Improve Strategies for Risk Management?

Risk is not only a variable in the current unstable financial environment; it is a constant. However, since Al took over, risk management has improved in speed, accuracy, and predictiveness. The days of financial organizations evaluating exposure only using spreadsheets and historical data are long gone. Al turns risk management into a proactive approach rather than a reactive one.

Al can use machine learning and predictive analytics to examine big datasets, identify patterns, and identify potential threats. This works especially well in credit risk assessment, as Al models consider social cues, behavioral data, and transaction history in addition to credit scores. For example, JPMorgan Chase uses Al algorithms to analyze borrower trends in real time and forecast the possibility of loan defaults, enhancing judgement and reducing losses.

Artificial intelligence (AI) systems analyze real-time data from international markets, macroeconomic fluctuations, and regulatory changes to identify new risks in market risk management. These clever models are frequently incorporated into complex risk assessment models, which improve with time as new data becomes available.

While AI cannot completely remove uncertainty, it does provide financial leaders the knowledge they need to deal with it head-on. AI has emerged as the strategic hub of contemporary risk management, where uncertainty meets well-informed action by fusing speed, size, and learning.

In What Ways Is Al Transforming Customer Experiences?

Consumers in the era of personalization demand sophisticated, customized experiences rather than generic financial services. By transforming data into empathy, Al is bringing that vision to life.

"Al helps us understand the human side of finance" - Satya Nadella

24/7 customer service is being redefined by chatbots, such as Erica from Bank of America. Erica anticipates what customers might need next, such as alerting them of bills or providing spending insights, in addition to providing answers to their questions. Similar to this, Cleo, an AI financial assistant, engages customers and helps them improve their budget by using emoticons and warm language, making money management less scary and more relatable.

Financial planning has been moved from boardrooms to users' pockets by rob- advisors. These artificial intelligence technologies evaluate client profiles, objectives, risk tolerances to offer investment methods that were previously only available to wealthy people. They're making wise financial advice more accessible to all.

Additionally, AI gives banks the ability to predict client needs in real time by advising savings plans, identifying anomalous account behavior, and providing tailored lending possibilities.

This change is about connection, not just technology. Financial institutions can respond more meaningfully, listen more intently, and establish trust more naturally thanks to Al. Not only is customer service being transformed, but the customer experience is being elevated into a more intelligent and intuitive trip.

What Ethical Challenges Accompany AI in Finance?

There are warning signs along the way as AI takes over the financial wheel.

Despite their strength, algorithms may unintentionally or purposely carry human prejudices. A credit-scoring system that inadvertently disadvantages specific groups raises serious ethical issues. The opacity of "black-box" Al models further complicates transparency by making it difficult to defend decisions that affect real lives.

Another issue is data privacy. Data is the lifeblood of AI, but when does usefulness end and intrusion begin? Ensuring ethical data usage is becoming more than simply a responsibility. It is a necessity as financial institutions collect more personal details.

Global regulators are slowly catching up. The need for just, explicable, and accountable Al is becoming more and more strident, as evidenced by the EU's Al Act and discussions in the US. Innovation and integrity must coexist in the future of Al in banking because once confidence is lost, it is hard to recapture.

How Will Al Impact Future Financial Decision-Making?

The ability of artificial intelligence to enhance risk analytics, expedite processes, identify fraud, and customize client experiences has already started to change the financial environment. Nevertheless, this is just the beginning.

Even more intelligent systems that can anticipate, learn, and provide real-time advice in addition to reacting are possible in the future. In the future, financial decisions will be made more quickly, intelligently, and inclusively. However, enormous power also carries a great deal of responsibility. Transparency, equity, and ethical design must be given top priority by the industry as AI becomes more widespread.

Responsible innovation is the link between technology and trust, not just a catchphrase. The winners in this Al-driven world will be those that use its intelligence while maintaining a human-centered perspective

The future of finance is not just digital. It is decisively intelligent, and deeply human at heart.

Koralage Tharuka Devindi BM (Hons) in Accounting and Finance Batch - 23.2 NSBM Green University





Al Unlocked: Revolutionizing Financial

Decision-Making

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In a world where milliseconds can move millions, Artificial Intelligence is no longer a future disruptor. It is the financial world's present game-changer.

Consider Mastercard as an example. Using artificial intelligence (AI), its decision intelligence system evaluates past transactions and compares them to present behavior in milliseconds to determine the risk of fraud. This makes it possible to avoid damage before it happens and to send proactive alerts.

Al sees patterns we can't, faster than we blink. Al develops rather than simply reacts. The algorithm learns to identify new strategies with each fraudulent attempt. Al's ongoing learning reduces error margins and improves response times, which is a crucial benefit in the quick-paced world of digital banking. Fraud detection is going to be smarter, not just faster. Furthermore, in the digital age, intellect is the most effective defense against dishonesty.

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