Twimbit AI Spotlight

Insights into industry-leaders and their strategies for winning with AI

#7 BARCLAYS

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Introduction

Barclays PLC is undergoing a transformation that treats AI not as a buzzword or siloed initiative, but as an enabling capability embedded within its broader strategic execution. Instead of hype-led experimentation, Barclays pursues a disciplined approach, emphasising risk alignment, regulatory compliance, and sustainable value creation.

AI is being increasingly embedded into key operational domains, including lending, customer service, cybersecurity, compliance, and internal productivity. These efforts are underpinned by modernised infrastructure, internal governance frameworks, and specialised delivery hubs that enable scalable adoption without compromising control.

1. Barclays' approach to AI reflects operational discipline, not disruption.
    a. The bank integrates AI and automation, which directly support business goals by enhancing credit journeys, reducing fraud exposure, improving document workflows, and increasing process efficiency.
    b. Deployment decisions are tied to tangible outcomes such as cost efficiency, improved risk forecasting, and better customer experience, not to experimental ambition.
2. Governance and regulatory alignment remain central to AI adoption.
    a. Barclays proactively aligns AI practices with GDPR, UK regulations, and the evolving EU AI Act.
    b. This ensures every high-impact system remains explainable, auditable, and legally defensible.
3. AI is not treated as a standalone strategy, but as a cross-functional enabler.
    a. It supports Barclays' broader institutional transformation by reinforcing underwriting models, digitising servicing, guiding internal workflows, and strengthening data resilience.

Financial performance (2024)

Barclays delivered strong financial results in 2024, underpinned by disciplined execution, operational simplification, and a focus on sustainable growth.

1. Profit before tax reached USD 11 billion (GBP 8.1 billion) in 2024 from USD 8.92 billion (GBP 6.56 billion) in 2023, marking a 15.7% increase, supported by lending expansion and cost discipline.
2. Total income rose to USD 36.46 billion (GBP 26.8 billion) in 2024 from USD 34.55 billion (GBP 25.4 billion) in 2023, with gains driven by net interest income and deeper cross-selling among digitally engaged customers.
3. The loan portfolio expanded by 3.76% from USD 543.5 billion (GBP 399.5 billion) in 2023 to USD 563.9 billion (GBP 414.5 billion) in 2024.
4. Deposits grew by 4.1% from USD 732.3 billion (GBP 538.3 billion) in 2023 to USD 762.7 billion (GBP 560.7 billion) in 2024.
5. Return on Tangible Equity (RoTE) improved to 10.5%, up from 9.0%, reflecting stronger capital efficiency.

6. Earnings per share (EPS) climbed to 36p in 2024, from the earlier 32.4p in 2023, an 11.1% YoY increase, enabling higher capital returns.
7. Cost-to-income ratio improved to 62%, benefiting from simplification, process automation, and digital channel shift.
8. Loan loss rate held steady at 46bps, highlighting resilient credit quality and proactive risk management.

Divisional performance:

1. Barclays UK generated USD 4.9 billion (GBP 3.6 billion) in profit before tax and delivered a 23.1% RoTE, aided by enhanced digital mortgage servicing and reduced complaint volumes.
2. UK Corporate Bank posted USD 950 million (GBP 700 million) in profit before tax and a RoTE of 16%, reflecting gains from client onboarding digitisation, treasury modernisation, and streamlined credit workflows.
3. Private Bank & Wealth Management earned USD 540 million (GBP 400 million) in profit before tax with a RoTE of 28.1%, driven by improved segmentation and rising demand for advisory-led investment propositions.
4. Investment Bank contributed USD 5.17 billion (GBP 3.8 billion) in profit before tax on USD 16 billion (GBP 11.8 billion) of income. Performance was enhanced by revenue optimisation, better cost control, and digital support in areas like trade execution and risk analytics.
5. US Consumer Bank delivered USD 540 million (GBP 400 million) in profit before tax on USD 4.5 billion (GBP 3.3 billion) in income, supported by co-branded card growth and real-time credit modelling capabilities.

AI supported the bank's broader operational leverage, enhancing fraud detection, improving affordability assessments, and lifting employee capacity across key functions. It supported enablement by supporting cost efficiencies, risk calibration, and improved customer engagement.

Strategic AI & digital transformation

Barclays' approach to AI and digital transformation is grounded in scale, structure, and long-term value creation. Rather than pursuing fragmented innovation, the bank has embedded AI into its broader digital execution strategy, spanning automation, platform investments, ecosystem partnerships, and workforce enablement. The following strategic pillars underpin this agenda:

1. Automation as a strategic enabler
    a. The simplification strategy involves automating both customer-facing and internal processes.
    b. This includes the automation of payment operations and credit workflows, which are typically AI-adjacent domains.
2. Centralisation of engineering talent
    a. The bank is strengthening its internal digital capability via in-house engineering teams.

      b. Over 2,000 roles in India and the US hubs support product development, data platforms, and intelligent process design.

      c. These teams are involved in developing or integrating AI tools within risk, finance, and customer operations.

3. Governance by a simplification agenda
   a. AI adoption, where present, is folded into the broader strategic control framework.
   b. The emphasis is on consistent platform governance, data standardisation, and reducing operational complexity.

Digital transformation is one of the key enablers underpinning Barclays' medium-term strategy. The bank is reconfiguring its operating model to be more efficient, customer-centric, and digitally agile.

These strategic pillars are operationalised through targeted investments across platforms, people, and process redesign. Strategic elements of Barclays' transformation:

1. Customer-facing platform investment
   o Barclays is investing in scalable, cost-efficient platforms that enable customers to interact digitally across services.
   o In the UK, this includes simplified mortgage journeys and digital self-service tools across retail banking.
   o In the US, co-branded credit card experiences with partners like Gap and AARP are now primarily digital-first.

2. Process simplification and automation
   o The bank has focused on eliminating redundancy across core banking operations.
   o In 2024, Barclays achieved a 3% reduction in headcount as part of simplification efforts, driven in part by the automation of administrative and middle-office functions.
   o Manual processes such as reconciliations and data validation are being migrated to streamlined, digitally enabled workflows.

3. Technology modernisation and consolidation
   o Barclays aims to reduce complexity by consolidating legacy systems and investing in modular platforms.
   o The bank highlighted investment in "next-generation platforms" to improve resilience and support automation at scale.
   o This includes end-to-end automation in areas like customer onboarding and product servicing.

4. Transformation hubs in India and the US
   o Barclays expanded its Global Capability Centre in Pune and invested in a new tech hub in the US.
   o These centres focus on software engineering, platform automation, and technology delivery across the group.

5. AI Innovation Hub with Microsoft & NVIDIA
   o Barclays recently inaugurated a GenAI Innovation Hub in London, co-created with Microsoft and NVIDIA. The hub is designed to accelerate AI-powered

enterprise solutions, emphasizing safe, scalable innovation across front-office and middle-office domains.
- o Beyond shared infrastructure, these partnerships enable the co-development of AI prototypes across fraud prevention, personalisation, and productivity use cases. Microsoft and NVIDIA engineers collaborate with Barclays teams to accelerate safe GenAI adoption in live environments.

6. Eagle Labs Network for AI Start-ups
    - o Barclays' Eagle Labs accelerator, supported by a £12 million government grant, now runs 37 UK locations and has supported over 13,000 start-ups, including those focused on AI and digital innovation.
    - o In its first year, 1,681 tech start-ups were helped, with 74% outside London, with a mentor network of 1,500 supporting female- and minority-led ventures in AI, fintech, and climate tech.

7. Governed experimentation and team-led innovation
    - o Barclays positions GenAI as a horizontal enabler, allowing individual teams to experiment within controlled, policy-aligned environments.
    - o Employees are encouraged to test and develop new GenAI workflows relevant to their domain expertise, creating a pipeline of safe-to-scale use cases.
    - o This model balances innovation agility with the control required for financial institutions operating in regulated environments.

Digital transformation is not treated as a standalone initiative but as a core lever for margin improvement, customer retention, and strategic agility.

AI in customer-facing operations

AI is reshaping how the bank delivers value across customer journeys, from onboarding to fraud detection. While the bank avoids overt branding of AI in its customer interfaces, the underlying systems increasingly rely on automation, intelligent models, and real-time data orchestration. These applications reflect Barclays' focus on service reliability, operational efficiency, and digital control. Key use cases include:

1. Fraud detection and scam prevention
    - o Barclays UK uses machine learning models to analyse all customer payments in real time and prevent scams such as Authorised Push Payment (APP) fraud.
    - o In the US, AI-enabled personalisation and fraud detection systems are applied in credit card operations.
2. US credit card personalisation
    - o Barclays applies AI-enabled real-time offer personalisation and fraud detection in its US co-branded credit card business (e.g., AARP, Gap).
3. Document verification in onboarding
    - o Barclays uses automated ID verification and document validation tools in digital onboarding journeys.
4. Payment operations and reconciliations
    - o Barclays has automated parts of its payment processing and reconciliation functions, helping to reduce costs and improve speed.

o   These actions form part of a wider administrative and middle-office simplification agenda.

5. Customer onboarding
    o   Barclays uses automation in onboarding, specifically for document validation and ID verification.
    o   These systems improve accuracy and reduce time to activation.

6. Internal operations
    o   AI and automation have been introduced in IT support, scheduling, and back-office tasks to improve internal efficiency.

7. AI-enabled document classification in onboarding
    o   Barclays applies AI-based document classification systems to streamline customer onboarding across channels.
    o   These tools ingest, validate, and categorise identity and income documents in real time, improving accuracy and turnaround speed.
    o   The approach reduces manual backlogs and ensures consistent application of KYC and verification policies.

AI in workforce & infrastructure transformation

Internally, Barclays views AI as a catalyst for workforce empowerment and operational resilience. From reskilling programs and AI-driven productivity tools to foundational shifts in data infrastructure, the bank is building a workplace that supports agility, autonomy, and scale. These efforts are not siloed; they are tightly interwoven with the bank's simplification and platform strategies. Core initiatives include:

1. Reskilling and workforce flexibility
    o   The bank invested in redeploying employees affected by automation into growth roles.
    o   Workforce reskilling initiatives were tied to technology delivery hubs and product teams, indicating future-facing skill building.
    o   A proportion of the 3% headcount reduction was absorbed through automation rather than pure attrition.

2. Internal automation to improve productivity
    o   Technology is used to simplify workflows and free up employee capacity.
    o   Functions such as IT support, scheduling, and reconciliation have been partially automated, reducing administrative load.

3. Generative AI in day-to-day workflows
    o   The bank is rolling out Microsoft 365 Copilot, branded internally as a "Colleague AI Agent," to 100,000 colleagues globally after a successful pilot with 15,000 users.
    o   This embedment within its employee productivity platform brings capabilities such as business travel booking, compliance guidance, HR query response, and semantic content search to the front line of work, accessed via Viva Engage dashboards and Microsoft Teams.
    o   The program is designed to reduce operational friction and enhance staff autonomy in routine administrative tasks, reinforcing the bank's pivot to enterprise-scale AI-assisted productivity

4. Tech hubs to drive collaboration and innovation

- o The expansion of the Pune centre and the US tech hub created new hubs of employee-driven innovation.
        - o These teams develop reusable platforms and process automation tools for internal use.
5. AI for regulatory and compliance intelligence
        - o Barclays uses natural language processing (NLP) to support legal, risk, and compliance teams in interpreting regulatory documents.
        - o These AI tools extract obligations from lengthy policy texts, identify material changes, and flag jurisdiction-specific clauses.
        - o This automation frees up time for specialists to focus on higher-order tasks while ensuring a consistent, risk-aligned response to evolving regulatory landscapes.

Barclays' technology infrastructure is being rebuilt to support scale, resilience, and efficiency.

1. Investment in cloud-enabled platforms
    a. Barclays continues migrating systems to modern, scalable technology platforms.
    b. A shift toward "reliable, resilient, scalable platforms" indicates a hybrid or public cloud deployment.
    c. These platforms support data-driven decision-making and near-real-time process automation.
2. Cybersecurity and operational resilience
    a. Data protection remains a priority. The bank operates under a defined risk appetite and undergoes regular scenario testing.
    b. A comprehensive operational resilience framework ensures that data systems and controls are robust against cyber threats.
    c. The bank met regulatory expectations under the UK's operational resilience regime in 2024.
3. Data control embedded in process design
    a. The bank is investing in controls over key processes.
    b. This implies strong attention to data integrity and auditability, preconditions for AI model training and monitoring.
    c. Platform consolidation also supports unified data governance across regions and business lines.

Barclays' infrastructure modernisation efforts create the baseline for scalable AI, though specific references to model pipelines, data lakes, or AI compute environments were not made.

AI governance

Barclays has embedded AI governance within its existing enterprise control frameworks, ensuring that all high-impact systems, whether statistical, algorithmic, or automated, are rigorously managed. Without creating separate AI governance silos, the bank relies on well-established mechanisms of model risk oversight, cyber resilience, and internal audit to maintain system integrity and regulatory alignment. These safeguards include:

1. Model risk management framework
   - Barclays uses model risk controls to monitor the performance and integrity of models across the business.
   - This includes stress testing, validation, documentation, and oversight from second-line functions.
   - Any AI system impacting financial or risk decisions would likely be captured under this governance structure.
2. Technology and cyber risk oversight
   - The Board Risk Committee oversees operational and IT risk, including the resilience of technology-enabled services.
   - All automated systems fall under enterprise risk management and undergo incident and outage reporting.
3. Internal audit function
   - A three-line-of-defence model applies to all key controls, including those involving digital and automated systems.
   - Internal audit conducts regular testing of operational, data, and platform risks.
4. Human-in-the-loop AI development
   a. Barclays has established an AI Champions Network, a cross-functional community that ensures responsible AI development across business lines.
   b. AI applications are built using a human-in-the-loop model, involving business SMEs, risk specialists, and engineers in every stage of deployment, from prototyping to operational rollout.
   c. This design ensures AI systems remain contextually grounded, auditable, and aligned with enterprise policy.

Barclays' governance model ensures that even in the absence of an AI-specific committee, all high-risk systems are covered under its existing risk and audit architecture.

Conclusion

Barclays' approach to AI is embedded, not explicit. The bank avoids overstating its AI credentials and instead focuses on enterprise-wide simplification, digital efficiency, and platform reliability. While it does not brand AI as a front-line strategic pillar, automation, data-driven decision-making, and technology-enabled scalability are central to its medium-term agenda.

Barclays is building the foundations for deeper AI adoption by modernising infrastructure, consolidating platforms, and embedding governance into operational models. In doing so, it avoids the risk of hype-led transformation, favouring a model that prioritises compliance, resilience, and business value.

The AI journey at Barclays is not loud, but it is underway, and it is aligned with the bank's vision of becoming a simpler, higher-performing institution.