

ISLAMIC DIGITAL ECONOMY

Islamic Fintech, Cryptocurrency, Blockchain and AI

A working session on classification, governance and risk

Assoc Prof Dr Ziyaad Mahomed

Head of Online Programs, INCEIF University

Associate Researcher, CoE Islamic Social Finance, INCEIF University · SC-OCIS Visiting Fellow, Oxford (2024/25)

Three questions this session answers

01

Where Islamic fintech is closing the inclusion gap, and where it isn't

Market growth measured against where the firms and capital actually sit.

02

How the crypto classification question gets resolved

Mal, nuqud, and what that resolution requires of a regulator.

03

Where AI is already inside underwriting, claims and credit decisions

And where automation crosses from efficiency into a breach of duty.

SECTION I

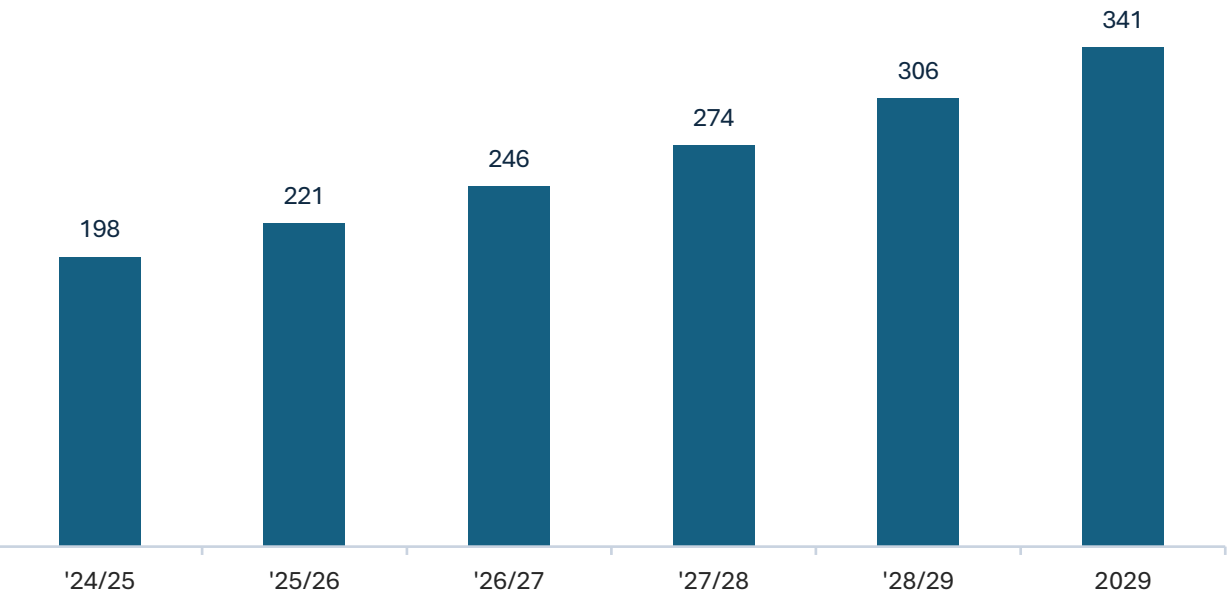
Potential of Fintech in Islamic Finance

Market structure, concentration and the gaps

Market size and growth to 2029

USD 198 billion in 2024/25, projected to USD 341 billion by 2029.

ISLAMIC FINTECH MARKET SIZE, USD BILLION



11.5%
Islamic fintech CAGR to 2029

11.0%
Conventional fintech CAGR, same period

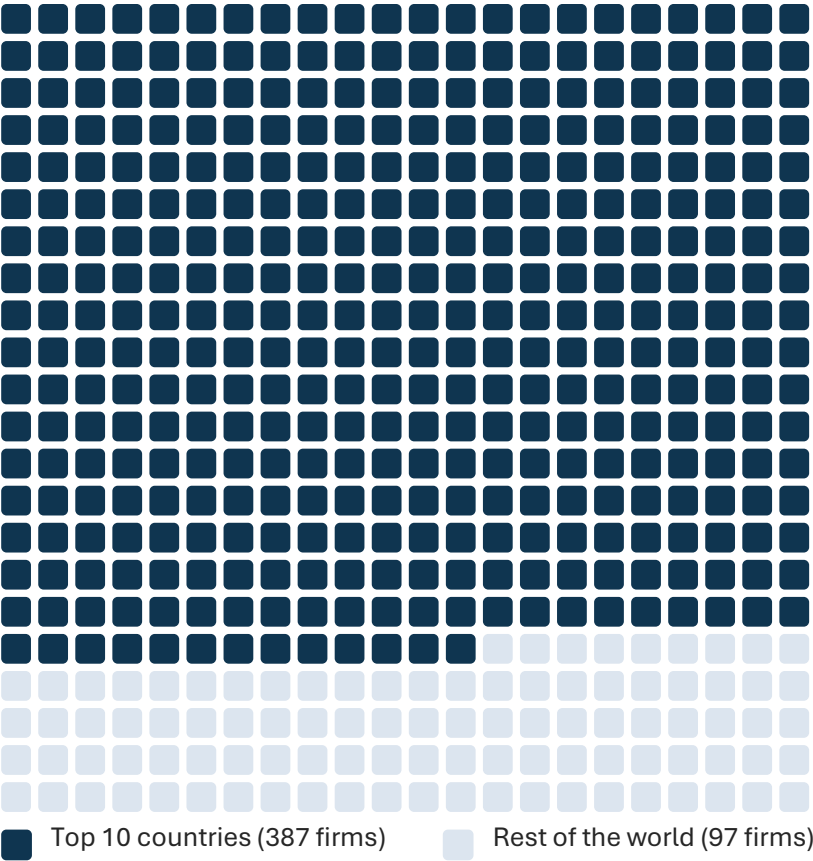
1.5%
Islamic share of the global fintech market

93%
Of market size sits in the top 10 markets

Growth is slower than the sector’s own history, but still ahead of conventional fintech. The constraint is share, not momentum.

484 firms, and where they sit

Each square is one Islamic fintech firm. The shaded squares sit in just ten countries.



41

Countries with at least one Islamic fintech firm

13

Sectors covered across the ecosystem

16

Countries with transaction volumes above USD 1 billion

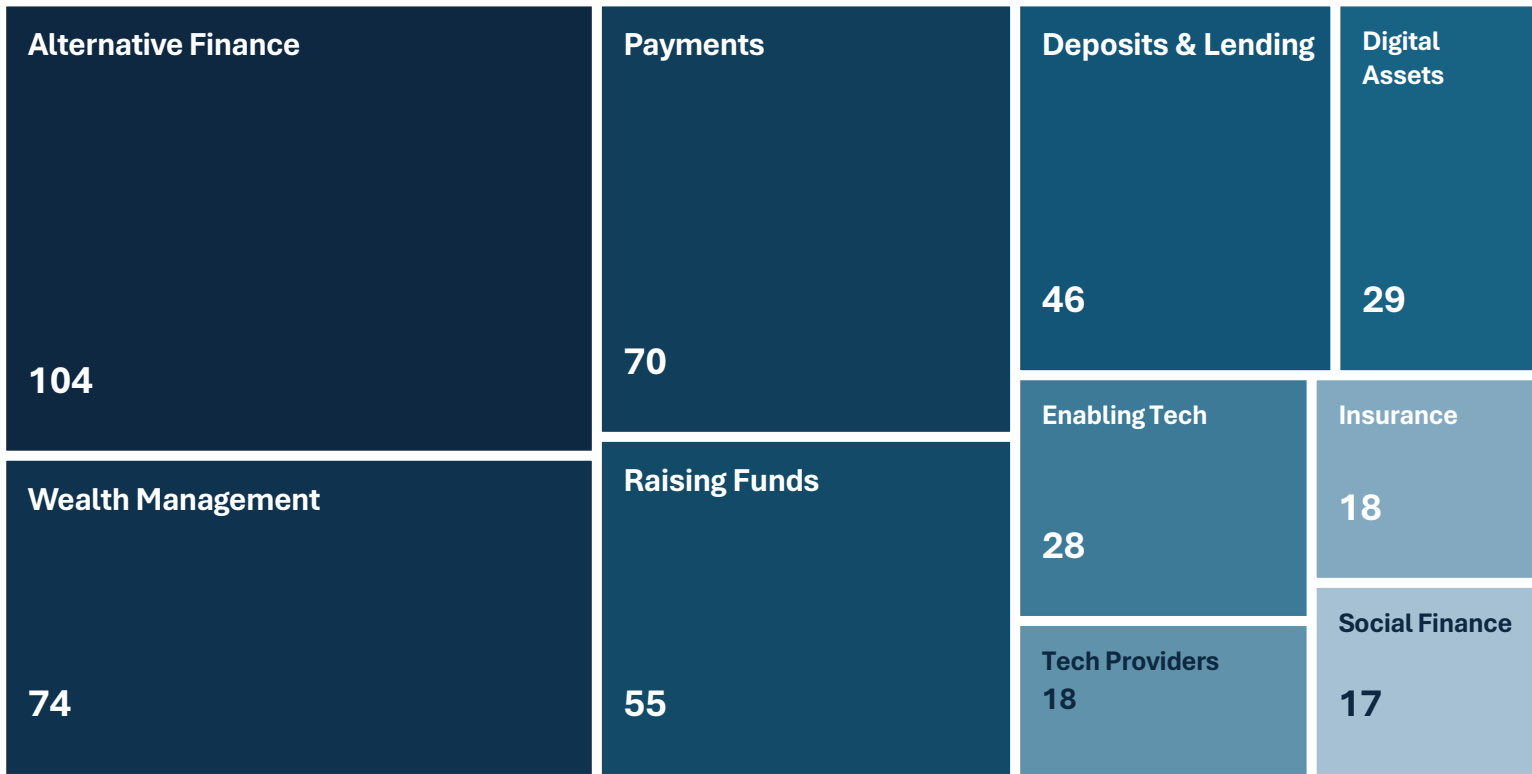
Firm numbers have consolidated rather than expanded. Growth now comes from scale inside existing players and from deepening in the leading hubs, not from new entrants.

Source: Global Islamic Fintech (GIFT) Report 2025/26, DinarStandard & Elipses.



Where the 484 firms actually are

Area is proportional to the number of firms. The top five verticals hold 72% of the sector.



THE STRUCTURAL GAP

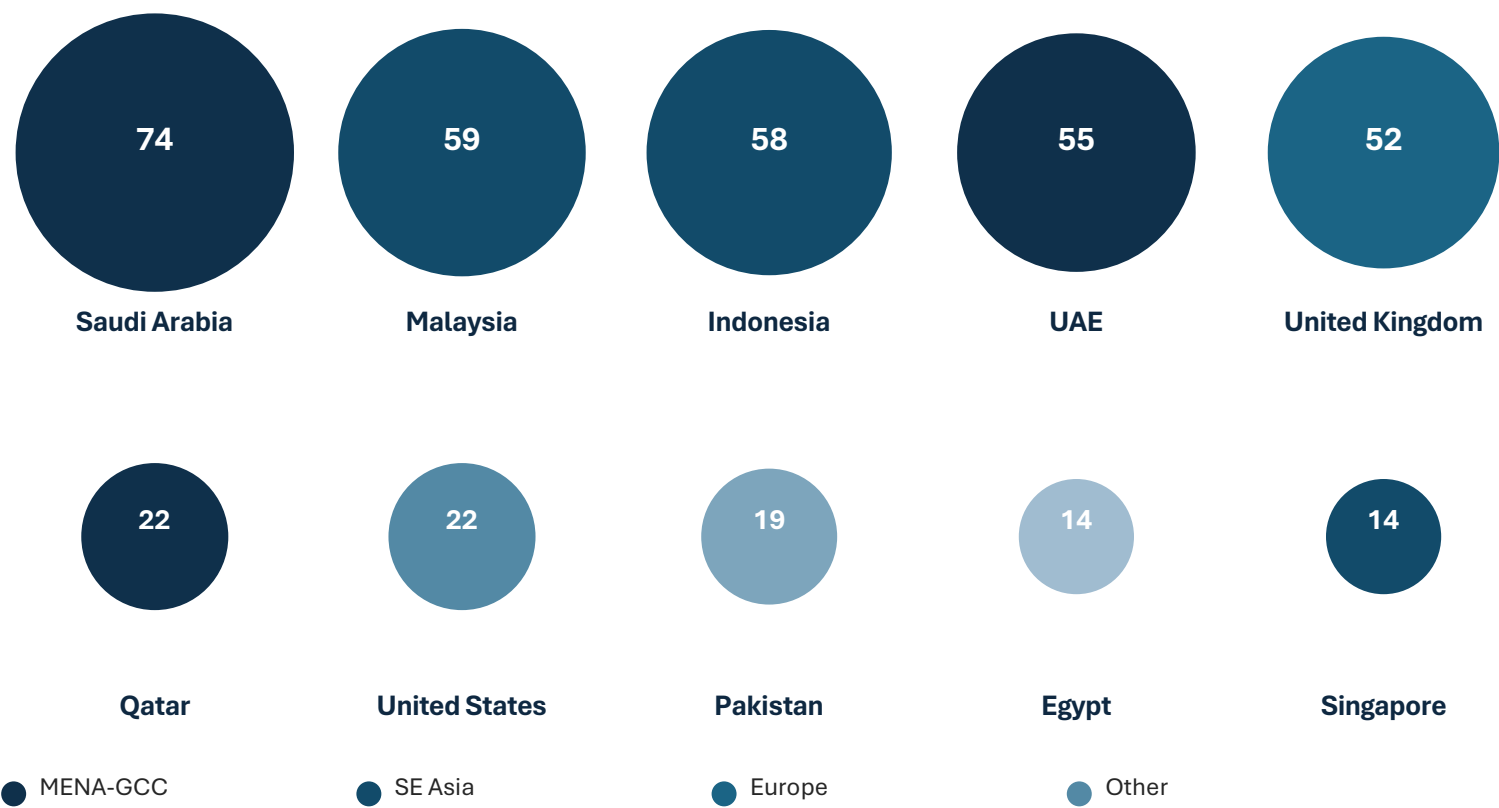
Capital Markets, Insurance and Social Finance each sit below 20 firms globally.

Those are the verticals carrying the redistributive and risk-sharing functions of Islamic finance.

The sector has built where revenue scales predictably and left the rest thin.

Geographic concentration of firms

Circle area is proportional to firm count. Three regions host 80% of the global total.



FIRMS ARE NOT VOLUME

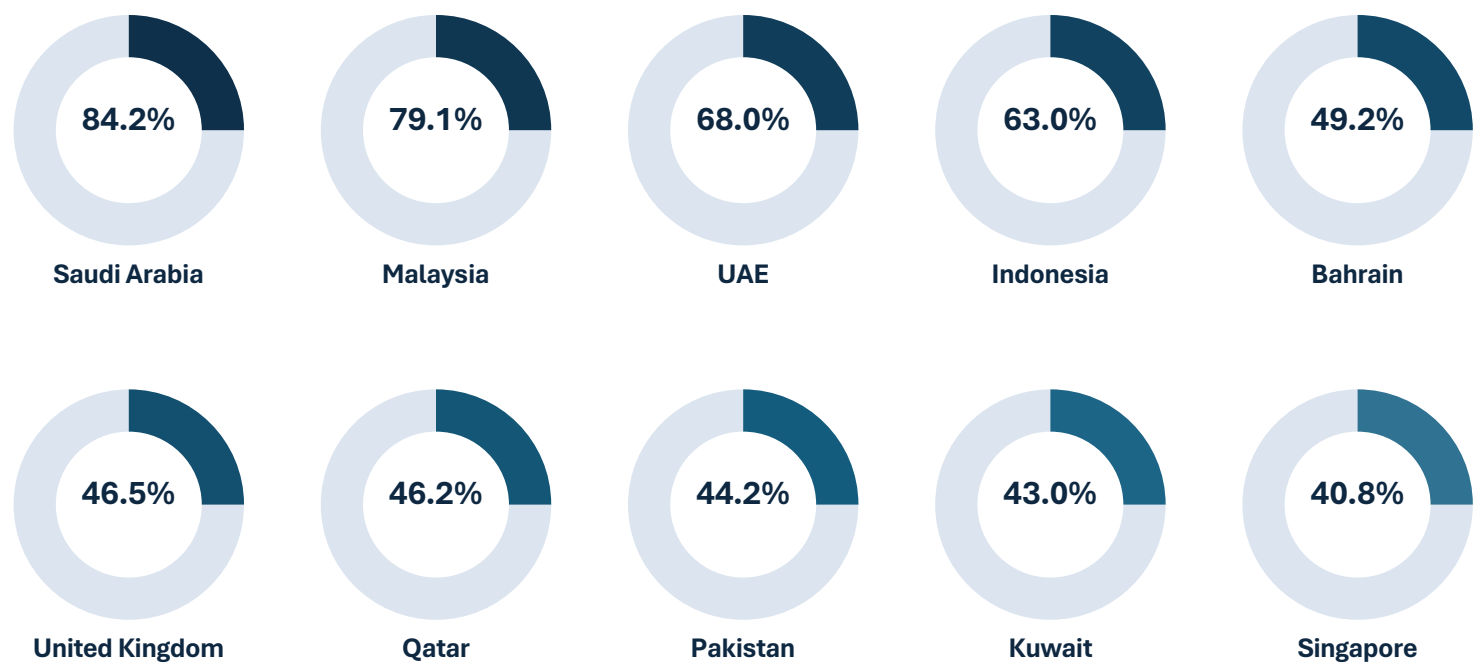
By transaction volume the leading markets are Saudi Arabia, Iran, Malaysia, the UAE and Indonesia.

Iran ranks second on volume while barely registering on firm counts. The UK ranks fifth on firms but not on volume.

A supervisor reading only one of these two measures will misjudge the market.

GIFT Index 2025/26: ecosystem conduciveness

64 countries scored on 19 indicators across talent, regulation, infrastructure, market and capital.



WHAT THE RANKING SHOWS

The top five are all OIC jurisdictions for the first time, with Bahrain entering that group.

Pakistan reaches the top 10 for the first time.

The UK and Singapore are the only non-OIC entries in the top 10, though eight non-OIC jurisdictions now sit in the top 20.

Regulatory posture is doing much of the work in these movements.

Where the growth and the gaps sit

Verticals plotted by number of firms against growth momentum.

Leaders

High volume, high momentum

Alternative Finance · Wealth Management
· Deposits & Lending · Payments

Emerging

Low volume, high momentum

Digital Assets · Social Finance · Capital
Markets · Insurance · Business
Intelligence

THE REGULATORY READ

The Emerging quadrant is where policy actually moves outcomes. These verticals have momentum but few firms, so entry conditions and licensing clarity determine whether they scale.

Digital Assets, Capital Markets and Social Finance all sit here, and all three are the subject of live regulatory decisions in most of the markets represented in this room.

Maturing

High volume, low momentum

Raising Funds

Dormant

Low volume, low momentum

Back Office · Technology Providers ·
Enabling Technologies

What the industry reports

Ranked responses from the 2025/26 industry survey.

GREATEST ENABLERS

- 1 Raising capital
- 2 Unserved customers
- 3 Supportive regulation
- 4 Geographic expansion
- 5 Increased digitalisation

GREATEST HURDLES

- 1 Access to capital
- 2 Lack of customer education
- 3 Regulatory compliance requirements
- 4 Complexity of geographic expansion
- 5 Cost of customer acquisition

EXPECTED GROWTH SECTORS, 2026

- 1 Digital assets
- 2 Capital markets
- 3 Social finance
- 4 Wealth management
- 5 Deposits and lending

Capital and regulation appear on both lists. The lever firms name as their main constraint is also the one they name as their main enabler, which puts the burden on how supervisors design entry conditions.

The social finance gap

ESTIMATED ANNUAL ZAKAT POTENTIAL

**Hundreds of
US\$ billions**

ACTUALLY COLLECTED

**Low tens of
US\$ billions**

Of 484 Islamic fintechs worldwide, 17 operate in social finance. Zakat, waqf and sadaqah infrastructure is the least built part of the ecosystem, and it is the part that carries the redistributive obligation.

For regulators: social finance appears in the industry's top five growth expectations for 2026 while holding one of the smallest firm counts. That combination is what a licensing and sandbox intervention is for.

Digital delivery and Islamic microfinance

Mobile banking

Digital wallets

eKYC

Open APIs

Open banking

INSTRUMENTS IN USE

Qard Hasan · Murabaha · Mudarabah · Musharakah · Ijarah ·
Salam · Takaful

CASE: AKHUWAT FOUNDATION, PAKISTAN

Interest-free lending (Qard Hasan) funded through donations and waqf, reaching over 5 million beneficiaries. Digitised application and disbursement cut turnaround from around 72 hours to 24.

The instruments are not the constraint. Distribution cost and reach are, and that is what digital delivery changes.

Constraints on scale

Access to capital

The top-ranked hurdle in the industry survey, unchanged year on year.

Customer education

Second-ranked hurdle, and rising. Demand does not convert without comprehension.

Regulatory compliance requirements

Easing as RegTech matures, but still a top five constraint.

Complexity of geographic expansion

Rising as firms move across borders into differing fatwa positions.

Shortage of Shariah-literate fintech talent

Technical fluency and jurisprudential training rarely sit in the same person.

Regulatory levers

01

Sandboxes for Islamic digital products

Structured, time-boxed testing before full licensing. Malaysia's iTEKAD model is the reference case.

02

Target the Emerging verticals

Digital assets, capital markets and social finance have momentum but few firms. Entry conditions decide whether they scale.

03

Name Islamic microfinance in the NFIS

Explicit inclusion in national financial inclusion strategy rather than implicit coverage.

04

Build capital pathways, not just rules

Access to capital is the sector's top-ranked hurdle. Regulation that opens funding routes addresses the binding constraint.

SECTION II

Cryptocurrency and Blockchain in Islamic Finance

Classification, market reality and tokenisation

Two classification questions: mal and nuqud

Every serious fatwa divergence on crypto traces back to one of two unresolved questions.

IS IT MAL? (property)

- Classical triad: desired, storable, valuable. No requirement that it be physical.
- Qabd hukmi (constructive possession) already covers account credits and debts in later fiqh.
- Istilah and urf can satisfy the recognition test, but only if durable rather than a speculative cycle.
- Regulatory recognition converts loose social consensus into something with legal weight.

IS IT NUQUD? (currency)

- Test: medium of exchange, unit of account, store of value. All three, not one.
- Most cryptocurrencies fail store of value outright, on volatility alone.
- Stablecoins come closer, but only as good as the transparency of what backs them.
- Fails the test empirically today. That is not the same as being disqualified in principle.

Decentralisation and the nuqud test

Gold and silver functioned as nuqud for centuries with no central issuer. What mattered was near-universal acceptance and price stability, not the presence of an authority behind the coin. Decentralisation does not disqualify something from being nuqud in principle. The practical failure of most cryptocurrency today is stability, and that is an empirical problem rather than a categorical one.

IF CLASSIFIED AS NUQUD, THAT TRIGGERS:

Bay' al-sarf applies

Same-type exchange must be equal in value and hand-to-hand.

Restricts current practice

Margin trading, deferred settlement and interest-bearing staking as structured today.

Zakat treatment shifts

From trade-goods valuation to currency-based nisab and hawl calculation.

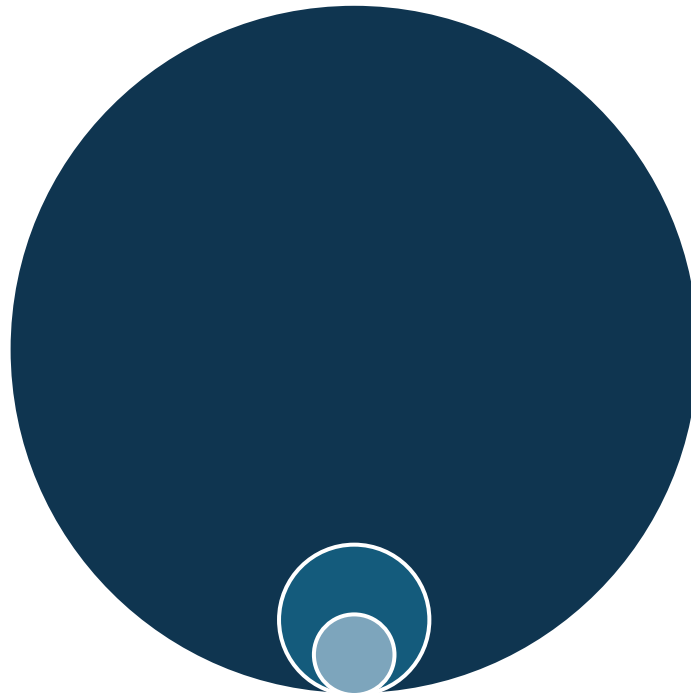
Comparative fatwa positions on cryptocurrency

Jurisdiction / Body	Position	Methodology
Malaysia (SC)	Permitted, conditionally	Asset-by-asset screening: the most defensible methodology on the table
Indonesia (MUI, 2021)	Conditional permissibility	Case-by-case, tied to underlying use and speculation risk
Egypt (Dar al-Iftaa, 2018)	Rejected	Rejected as mal outright
Turkey (Diyanet, 2017)	Rejected	Held incompatible with Islamic principles
AAOIFI (Shariah Standard No. 65, 2023)	Conditional framework	First cross-jurisdictional attempt at a standard on crypto assets

In 2025 Pakistan, Jordan and Morocco all moved to lift crypto bans and establish frameworks. Most treat crypto as an asset rather than a payment method, which is the mal classification arriving through regulation rather than through fatwa.

What the digital asset market actually is

Circle area is proportional to market value, early January 2026.



USD 317bn

Stablecoins

USD 15bn

Payments use

USD 4.31bn

Tokenised RWAs

READ THIS CAREFULLY

The settlement rail is large. Actual payment usage is not, and the tokenised real-asset market is smaller again.

Roughly 6% of stablecoin demand is payments-related. The rest is wholesale positioning.

For Shariah purposes this matters: the nuqud question is being asked of an instrument that is barely used as a medium of exchange.

Tokenisation and the sukuk opportunity

How a USD 1 trillion market converts into an on-chain migration estimate.



LIVE REGULATORY AND MARKET MOVES

Malaysia

Three-year national asset tokenisation initiative; Bank Negara discussion paper issued for feedback.

UAE

Digital Dirham CBDC, wholesale and retail; Dubai tokenisation sandbox; ADGM FIDA cluster.

Saudi Arabia

National infrastructure for regulated real-estate tokenisation and digital transfer of ownership.

Qatar

QFC Digital Assets Lab running a blockchain proof of concept for Islamic finance.

What token backing needs to mean

Acceptable backing means a real, auditable, redeemable claim: physical commodities, real estate, Shariah-compliant sukuk, or fully reserved fiat. Fractional or opaque backing does not solve the uncertainty problem. It hides it.

REGULATORY TAKEAWAY

- Adopt asset-by-asset screening over blanket rulings. It is the methodology that holds up under scrutiny, and it is what the market data supports.
- Build Shariah screening into token design at issuance. Retrofitting a ruling after the fact is where most disputes originate.
- Distinguish ownership from exposure. A claim on a price is not a claim on an asset, and only one of those satisfies the backing requirement.
- Coordinate through AAOIFI and IFSB on methodology, since the technology moves faster than any single standard-setter's cycle.

SECTION III

AI and Digital Banking

Applications, risk and oversight

The scale of AI adoption

USD 1.5trn

Projected global fintech revenue by 2030, a fivefold increase

USD 7.2trn

Projected embedded finance market value by 2030

50%+

Of insurance customer interactions in Saudi Arabia already AI-driven

WHY THIS SITS IN A SHARIAH DISCUSSION

Operational scaling has always been the constraint in Islamic finance: bespoke products, manual Shariah review, thin data and high compliance cost. AI addresses each of those directly, through alternative credit scoring for underserved SMEs, automated Shariah monitoring and faster risk assessment. Building it responsibly is Fard Kifayah, not a commercial option.

Comparative AI regulatory approaches

European Union

Binding law, risk-based

High compliance burden for “high-risk” systems like underwriting, with legal certainty in return.

United Kingdom

Enforced principles, outcomes-focused

Focus on preventing consumer harm; senior managers face personal accountability.

Singapore

Voluntary, ecosystem-driven

Practical tools (AI Verify) for validating models and demonstrating responsible governance.

Malaysia (AIGE)

Non-binding, principles-based

High flexibility for innovation, though the ambiguity puts the burden of proof on the operator.

AI across the digital banking and Takaful value chain

Domain	Application	Where the ethical risk sits
Underwriting / credit scoring	Automated risk assessment; alternative-data scoring for the credit-invisible	Algorithmic bias leading to unfair exclusion or pricing ('adl, gharar)
Claims management	AI damage assessment, OCR document processing	Inaccurate assessment, opacity in decision-making ('adl, gharar)
Fraud detection	Anomaly detection on transactions and claims	False positives unfairly targeting specific groups (violates 'adl)
Shariah / compliance screening	NLP screening of contracts and investments against AAOIFI criteria	Over-reliance on quantitative rules; weakens juristic reasoning (istinbath)

Case study: automated claims denial at Cigna

60,000

claims denied in a single month through one automated system

1.2 sec

average time spent per case, per the company's own court filing

A U.S. class action alleged Cigna's "Px Dx" system allowed automated denial of large batches of health claims without individual physician review.

THE MAQASID TRANSLATION

Denies haqq

The participant's right to a fair, thorough assessment.

Causes dharar

Wrongful automated rejections cause real financial and emotional harm.

Fails the duty of fair review

A final claims decision made by an algorithm without meaningful human oversight is an abuse of discretion, not efficiency.

Case study: algorithmic bias in screening (Mobley v. Workday)

1.1B

applications rejected through one AI screening platform, per the company's own court filing

100+ jobs

one applicant, rejected every time, some within minutes, no human in the loop

Mobley v. Workday: AI hiring tools are alleged to screen out applicants by age, race and disability. Workday denies the claims; a U.S. collective action is proceeding (2025–26).

THE DIGITAL BANKING PARALLEL

The same logic runs through automated credit scoring: applicants filtered out before a human looks, on proxies learned from biased data, not on merit.

Denies equal footing

'Adl and qist: filtered on proxies, not merit.

Strikes at livelihood and access

Hifz al-mal: the harm runs to sustenance and financial access itself.

Opacity without recourse

Gharar: rejected in minutes, no reason given, no appeal.

Dividing responsibility between machines and humans

Algorithms trade in milliseconds and update weekly. Shariah boards meet quarterly. The answer is not faster boards. It is a clear division of labour.

THE MACHINE: CONTINUOUS MONITORING

Flags breaches instantly. Cross-checks live transactions against the fatwa base. Moves from periodic certification to real-time alert.

THE HUMAN: JUDGMENT ON CONSEQUENCE

Owns every decision that touches a life, a livelihood, or access to finance. Where the stakes are real, a person stays accountable.

Data is amanah, a trust rather than simply an asset. Purpose limitation and real consent are not optional governance features. Exposing personal data beyond its collected purpose breaches the trust itself.

Building Shariah committee capacity for AI oversight

TRADITIONAL SHARIAH COMMITTEE

- Contract review: terms and asset existence
- Ex-post compliance: quarterly audits
- Reactive fatwas: binary approval of finished products
- Text interpretation: focus on legal prose

DIGITAL-ERA REQUIREMENT

- Algorithm auditing: verifying AI logic and pricing models for bias
- Real-time monitoring dashboards, not quarterly snapshots
- Agile co-design: sandbox participation, iterative guidance
- Technical literacy: APIs, smart contracts, data ethics

The GIFT survey ranks customer education as the second-greatest hurdle in the sector. The same gap exists inside supervision: boards are being asked to approve systems they are not yet equipped to audit.

CLOSING

Closing observations

Fintech, cryptocurrency and AI raise the same underlying question for regulators: does this serve the Maqasid, or only efficiency. The GIFT data shows a sector growing steadily but concentrated by geography and by vertical, with the redistributive functions left thinnest. That is where supervision changes outcomes.

Assoc Prof Dr Ziyaad Mahomed

drziyaadm@gmail.com