HCLTech | Supercharging Progress™

The payments industry:

AI everywhere. Trust nowhere?

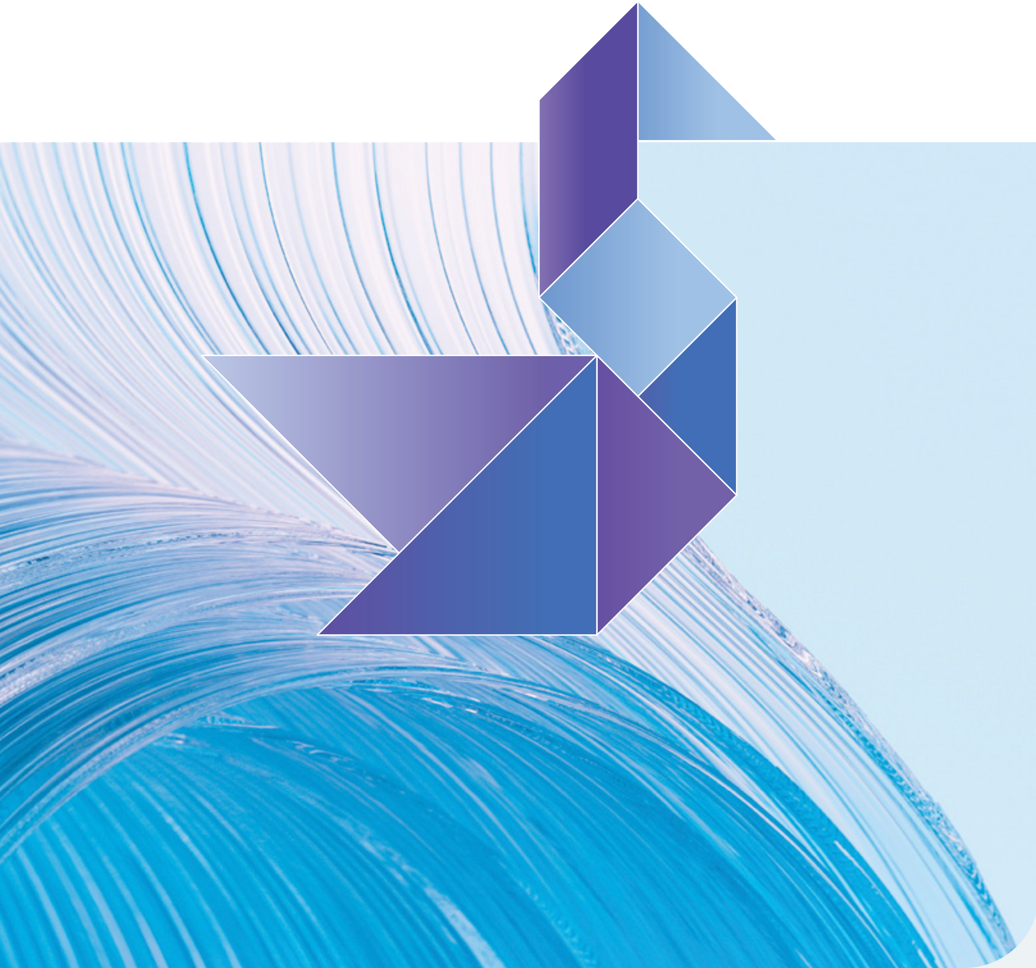
Explore insights from 600+ leaders on the future of payments

The Future of Payments Report 2025

Foreword

Transform, innovate or *disrupt*

The rising need to future-proof through market disruptions



Srinivasan Seshadri

Chief Growth Officer
and Global Head of Financial Services

The payments industry is undergoing transformational change. Leaders are past the point where they grapple with whether or when they should integrate AI into their operations. It’s clear they want to get to a faster, safer, more reliable payments ecosystem, yet many are still asking how? How do we implement innovation? How do we address the risks? How can we unlock new capabilities and grow?

Given the dizzyingly fast advances in AI, evolving customer demands and mounting competitive pressure in the marketplace, executives are finding that future-readiness is not just a strategy, but a necessity for survival.

HCLTech’s research exposes the tensions between the promise of innovation and the peril of being underprepared, and explores how banks and payments organizations can build resilience and adaptability while managing risk effectively.

Table of contents

Introduction		04
Paradox 1	AI everywhere. Trust nowhere?	06
Paradox 2	The future is autonomous – But are leaders ready?	16
Paradox 3	Innovate to win, iterate to survive	26

Introduction

In charting the path to the future, organizations are looking beyond incremental improvements, instead favoring bold innovations over modernizations to existing operations, according to a survey – conducted by HCLTech in collaboration with Wakefield Research, a leading independent research firm. The study gathered insights from 600 executives at companies that deal with cards, payments and payment processing across the US, UK, Ireland, Denmark, Finland, France, Germany, the Netherlands, Norway and Sweden.

The findings also reveal that payments and payment-processing decision-makers are embracing AI, with virtually all using it in some aspect of their payment operations or user experience.

This report explores insights from these payments leaders as they share their perspectives for the next era of payments transformation — where innovation, autonomy and AI take center stage.

This research paper maps the crossroads the payment industry faces, where ambition, innovation and risk converge. It charts a path for leaders tasked with building a secure, competitive and future-ready payments infrastructure.

This isn't just a report.

It's actionable intelligence to help enterprises chart their way through the future of payments.

Insights that **fuel the future**

The reward

99% of payment leaders use AI in some aspect of their payment operations or user experience

58% prefer bold innovation over refining legacy systems

Most common applications:

47%
Payment optimization and routing

47%
Conducting investigations

47%
Managing payment expectations

46%
Customer experience and personalization

54% **see autonomous assistants as future-proofing tools through:**

AI-driven decision-making (57%) | Reduced reliance on human intervention (56%) | Real-time data orchestration (55%) | End-to-end automated customer journeys (55%)

The risk

99% are concerned about the implications of agentic AI digital assistants

91% are concerned about the risks associated with applying AI in their organization's payments operations

87% fear losing customers without instant payments

87% fear losing customers without real-time capabilities

60% believe current AI fraud detection tools are ineffective

Areas of concern:

Privacy (42%)
Integration (40%)
Customer trust and experience (40%)
Lack of transparency (36%)

Existing infrastructure

20%
of companies have fully modernized their data systems

81%
lack fully modernized cloud-native real-time systems to support innovation

17%
of companies are already operating as an autonomous financial services organization

52%
of companies are on their way toward autonomous operations (within 18 to 24 months)

Insight:
Innovations like autonomous financial services and central bank digital currencies are already here, but **only a minority are technologically ready**.

Paradox 1

AI in payments

Racing ahead while risk runs deep

Tony Craddock
Director General,
The Payments Association

"The future of payments is unfolding faster than anyone anticipated. While nearly every institution is experimenting with AI, trust and transparency remain the missing links. This research shows that true progress will come when banks and non-bank PSPs shift from experimentation to execution—building intelligent, autonomous systems that don't just process transactions but anticipate customer needs and operate seamlessly in the background. The challenge now is turning potential into practical, scalable impact."

For 82% of executives, AI is the only viable way to balance a frictionless customer payment experience with fraud prevention.

But many payments operations appear to be caught between ambition and reality.

Usage

AI is already the backbone of payments modernization. AI tools are optimizing transaction routing, enabling faster dispute resolution and personalizing the customer journey — often in real time.

Fraud detection and prevention are among the most common applications of AI in payments operations, with 43% of executives currently deploying AI for that purpose.

With most organizations already using AI tools in payment operations, the modernization of infrastructure to support it and awareness of its risks could not be more important.

Concerns

60% of executives feel that the AI-driven fraud-protection tools in the payments industry are still more ***ineffective*** than effective.

In an industry where trust is currency, weak confidence in fraud prevention is a red flag.

Despite the virtually universal reliance on AI tools, a nearly equal share of executives are worried.
The vast majority (91%) are concerned about the risks associated with applying AI in their organization's payment operations. 46% are either extremely or very concerned about it.

More executives in the US (50%) express heightened concern over AI use compared to those in Europe (41%), with the UK and Ireland positioned in-between at 45%.

Among those concerned about AI in their firm's payments operations, the most frequently cited new risk was AI hallucinations—such as misleading transaction outputs—reported by 42%. This was followed by concerns over synthetic fraud, including identity spoofing and deepfakes (40%) and data leakage due to poor AI governance (39%).

Governance

Payments executives are right to be concerned about AI's transparency and governance, since **47% lack AI policies** or guidelines at their organization.

Just 16% of organizations currently maintain a formal policy at the enterprise level.
A larger share (37%) follow informal or team-based guidelines.

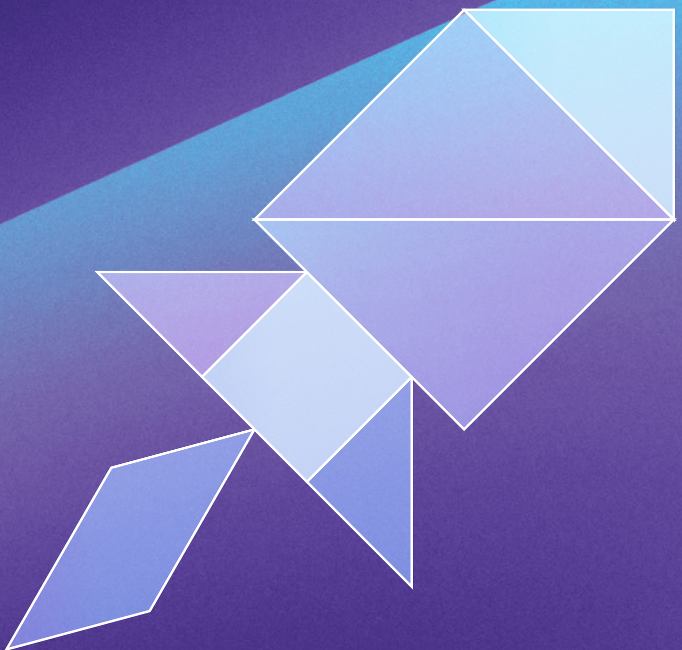
The US and Europe lag behind the UK and Ireland on AI governance. Only 35% of executives in the UK and Ireland are at firms with no AI policies or guidelines in place, compared to 47% in Europe and 50% in the US.
Without strong policies in place, the risks of misuse or malfunction loom large.

The tension is palpable: executives see AI as both the enabler of leap-frogging efficiency-charged operations and also an unwieldy source of new vulnerabilities. Without a stronger governance foundation, the payments industry risks undermining the very security it seeks to provide.

SPOTLIGHT

The new currency of payments: **Data**

In payments, data has become a critical fuel for innovation, resilience and growth. Organizations' priorities reveal distinct approaches to competing in an evolving payments marketplace.



For more than a third of leaders (34%), the focus is defensive, and the top goal for their data is to strengthen fraud detection and real-time risk management.

Others are channeling data into the customer journey. More than a quarter (27%) prioritize using their data to personalize interactions and create smoother, more engaging experiences.

How leaders use data

A small share are betting on the data's ability to expand the bottom line, with 20% of executives' organizations focused on using data to create entirely new revenue streams through monetization. Another 19% emphasize the data's role in ensuring compliance with privacy and security regulations.

34%

to strengthen fraud detection and real-time risk management

27%

to personalize interactions and improve customer experience

20%

to create entirely new revenue streams

Paradox 2

The future

Steve Morgan
Global Banking Industry Leader,
Pega

"Autonomous financial services is transforming from bold ambition to business imperative at unprecedented speed. Today's leaders are building AI systems that operate with genuine autonomy detecting fraud patterns that would have been missed earlier, routing payments through optimal channels instantly and making complex decisions in milliseconds. The key is balancing this autonomy with the transparency and control that builds lasting customer trust."

The future is autonomous
– but are payments leaders ready?

Transitioning to an autonomous financial services organization — marked by AI-led decision-making and fully automated customer journeys — is regarded as strategically vital.

While many organizations are making progress toward these systems, executives remain cautious about their integration, particularly regarding data protection, legacy systems and customer trust.

Shifting to autonomous financial services

This frontier is no longer theoretical.

More than half of payments organizations (52%) expect to operate as autonomous financial services organizations within 24 months and 17% are already doing so.

According to payments executives, the defining forces behind autonomous financial services being built out involves AI decision making (57%), minimal human involvement (56%), real-time data orchestration (55%) and end-to-end automation of the customer journey (55%).

Executives in the UK and Ireland placed a greater priority on the reduced reliance on human intervention (66%) compared to Europe (57%) or the US (53%).

Reasons for the shift

57% AI decision-making

56% Minimal human involvement

55% Real-time data orchestration

55% End-to-end automation of the customer journey

Impact of autonomous operations

Among executives that are planning for transitioning to, or already operating as an autonomous financial services organization, the areas expected to have the greatest impact from autonomous capabilities over the next two years will be in their organizations' ability to handle real-time fraud detection and resolution (51%), manage intelligent payment routing (47%) and to automate compliance and reporting (47%). A smaller share believes the highest impacts will come from predictive treasury and liquidity management (44%) or autonomous credit decisions (42%).

Possible areas of impact

51% Real-time fraud detection and resolution

47% Intelligent payment routing

47% Automation of compliance and reporting

44% Liquidity management

42% Autonomous credit decisions

Implementation of agent-pay solutions

While only 18% of executives say their organizations are fully prepared to deploy secure agent-pay solutions in customer-facing operations, a majority (63%) report being mostly prepared—with just a few gaps remaining

Agent-pay is here.

Across the industry, agent-pay capabilities and other agentic AI tools are teed up and ready to launch in the next two years.

The UK and Ireland are running ahead of other geographical cohorts, particularly Europe. While 85% of executives in the UK and Ireland are either fully or mostly prepared for agent-pay, just 75% of those in Europe are ready to do the same.

Challenges of agent-pay solutions

Nearly all executives (99%) harbor concerns about AI agents. And the worry isn't just about one single risk profile; it spans infrastructure, cost, consumer trust and transparency.

Data privacy and security vulnerabilities related to agentic AI digital assistants in the payment ecosystem is the most common cause of concern for executives (42%). But others are not far behind. Executives are also equally worried about integration risks with legacy payment systems (40%) as they are about the impact AI agents could have on customer trust and experience (40%). Some are also concerned about the potential for biased or inaccurate decisioning by agents (38%) and of course the cost and complexity of implementation (38%).

Key areas of concern

42% Data privacy and security

40% Impact on customer trust and experience

38% Cost and complexity of implementation

40% Integration with legacy payment systems

38% Biased or inaccurate decisions

Viability of agent-pay services

Many executives are pushing ahead with developing agents and implementing their capabilities because of their perceived value.

Over half (54%) believe AI agents are a long-term strategic investment. This sentiment is particularly true for executives in organizations with over 2500 employees with 71% championing long-term investments compared to 50% of those at smaller organizations.

Still, overall, a sizable share of executives are taking a wait-and-see approach, with 40% who believe AI digital assistants in the payment space will continue to evolve such that today's tools will be outdated in five years.

Europe is particularly skeptical about agentic capabilities with

12%

of executives not viewing AI digital assistants as a meaningful long-term investment or a strong potential for their evolution in the payments space

compared to

4% in UK and Ireland

and just

2% in the US

Benefits of agent-pay services

There is just too much to be gained by integrating agent-pay tools for executives to waver.

The top forces driving executives to consider or adopt agent-pay tools include enhanced operational efficiency (56%), followed closely by improved customer trust and experience (53%) and secure omnichannel payment enablement (50%). Cutting costs is a less common motivator, with only 39% of executives citing the lower costs of automation compared to manual handling as a key driver.

Overwhelmingly, agent-pay tools are part of the payments landscape, even if what they do, how they operate or the returns they generate are yet to fully be discovered.

A sign of the future

0% of executives report that their organization is not considering or adopting agent-pay solutions.

SPOTLIGHT

Europe's caution curve: pragmatism or missed opportunity?

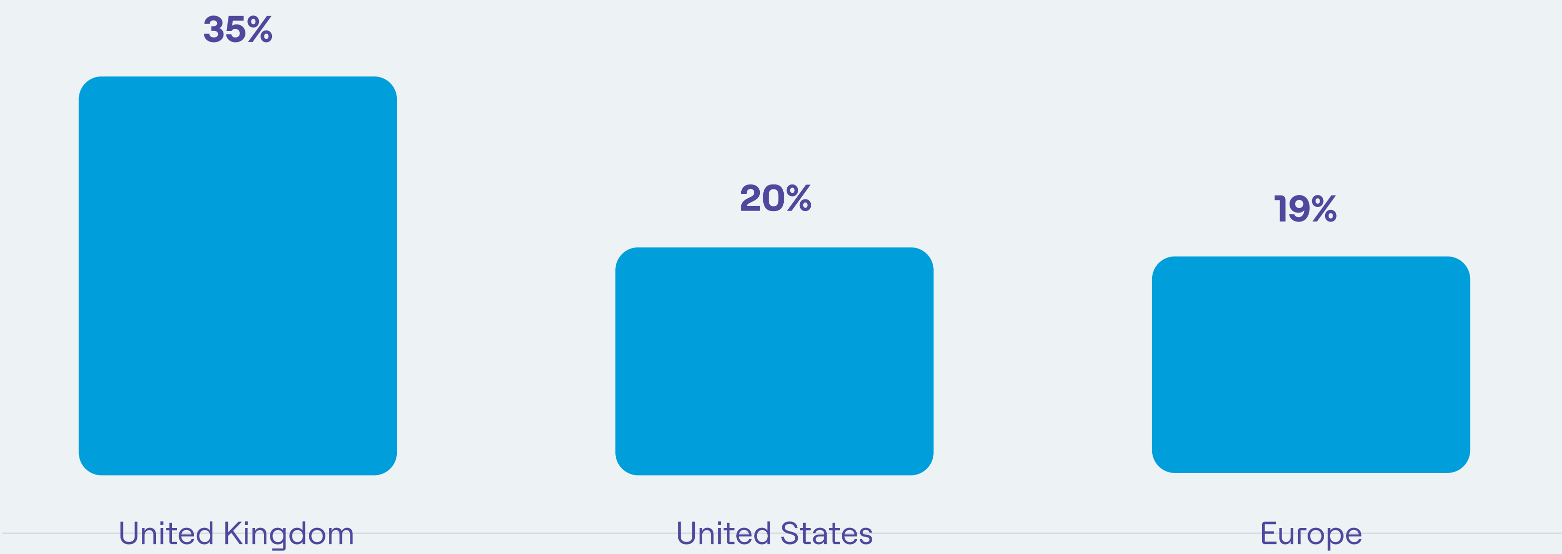
Across global markets, payments leaders are pushing towards AI-powered transformation. But Europe is taking a different track. One marked by caution, iteration and slower adoption.

While executives in the US (63%) and the UK and Ireland (70%) prefer bold innovation through new product development, a majority in Europe (57%) lean toward refining existing products. That more measured approach extends across several measures of AI adoption and implementation.

74% of executives from Europe think that AI is the only way to balance a frictionless customer payments experience with fraud protection, compared to the US (86%) and the UK and Ireland (85%).

Only 19% of executives from Europe and 20% in the US are fully ready now to adapt to the changes needed to thrive in the evolving and disruptive future of payments, compared with 35% in the UK and Ireland.

Readiness to adapt to evolving and disruptive payment trends



Paradox 3

Innovation and iteration

Innovate to win, iterate to survive

Monu Kurien Mathew
SVP and Head,
Strategy and Business Solutions,
Financial Services, HCLTech

"The payments industry is entering a transformative era where bold innovation must eclipse incremental change. As autonomous systems, instant payments, CBDCs, and AI-driven platforms reshape the landscape, the risks are real—but so are the opportunities. Visionary leaders recognize that evolving customer expectations and regulatory momentum demand decisive modernization. Those who embrace disruption today will architect the trusted, seamless, and intelligent payment experiences of tomorrow."

Leaders in the payments industry recognize that innovation is the path forward. The majority (58%) prefer bold adoption of new methods over improvements to legacy systems (42%).

The share of executives at companies with 2500 or more people (69%) was also greater for new payment modernization compared with those at firms less than 2500 (55%).

Looking to the future

69%

of companies with
more than 2500 employees

are ready for new payment modernization

55%

of companies with
less than 2500 employees

are ready for new payment modernization

However, this preference toward innovation is not consistent across regions. Europe is the outlier, with 57% of executives preferring to continue to improve a well-established payment method that customers already know and trust, even if it may be reaching its limits in flexibility or scalability.

Moves toward modernization are stronger in the US (63%) and the UK and Ireland (70%), where executives favor adopting a newly introduced, innovative payment method that aligns with emerging regulatory or industry standards, even if it comes with uncertainty and implementation risk.

Global perspectives

Europe

57%

of executives prefer to improve a well-established payments method

United States

63%

of executives prefer modernization

UK and Ireland

70%

of executives prefer modernization

The stakes are high for executives navigating innovation. Instant payments can be risky, but are proving necessary for customer satisfaction. Among executives, 82% recognize risks with instant systems and 19% classify them as high-risk. And yet, a strong majority have customer churn concerns, with 87% worrying they will lose customers if they don't support instant payments.

New innovations can arrive with nearly all executives on-board, few ready to handle it. For example, nearly all (99%) executives plan to support central bank digital currencies eventually and 60% aren't yet fully prepared.

Arguably the entire landscape of incoming disruptive forces is tough for executives, since they are split among the type of disruption that is a bigger lift. A slightly higher percentage (51%) of executives are concerned about system-level infrastructure changes – like CBDC systems, instant payments and decentralized or embedded systems – than the 49% who are worried about customer-facing innovation and behavior shifts like the adoption of digital wallets, embedded finance and AI-driven fraud detection.

Avenues for innovation

Emerging trends — including digital wallets, instant payments and AI-integrated processes — are sources of this kind of innovative transformation, but also catalysts for risk and uncertainty.

Payment industry executives see digital wallets (56%) as being among the top three most disruptive trends in the card payments and payment processing landscape in the next three years. This is followed closely by instant payments and real-time settlement systems (55%) and AI and machine learning in fraud detection and transaction optimization (51%).

Other disruptive forces in the industry that were also of note to executives:

47%
central bank digital currencies

46%
cross-border payment and remittance innovations — including the digitization of currencies

45%
embedded finance

Challenges and concerns surrounding innovation

A whopping **99% acknowledge disruptive forces** coming their way that they are not yet equipped to handle.

Regulatory uncertainty (43%) is the leading disruptive trend in the landscape that executives believe their organization is not currently prepared for.

But others are very close behind: cybersecurity and fraud (42%), evolving customer expectations around embedded seamless payments (41%) and the emergence of AI-driven agents and autonomous payment decisions (41%).

Executives cite specific and granular challenges with regulatory and compliance shifts. Real-time transaction monitoring and reporting requirements (45%) is among the shifts that create the greatest impact on their payment operation. It is followed by open banking regulations and data-sharing requirements (43%) and AI regulation, including responsible use standards and transparency (43%).

The path forward

Leaders see that to be successful it is not enough to just improve what you already have.

Over half of executives (52%) are implementing changes and making strong progress toward being on pace to adapt to the modernizations needed to thrive in the evolving and disruptive future of payments.

In fact, 22% are implementing transformation strategies now, with executives seeing their organization as fully prepared and already leading in "future-ready" payment capabilities.

Payments executives in the US (61%) and the UK and Ireland (53%) show stronger levels of actively implementing changes and making strong progress toward being on pace compared with those in Europe (39%). And the UK and Ireland has more firms that are fully prepared (35%) compared with the US (20%) or Europe (19%).

35%

of firms in the **UK and Ireland** are fully prepared

compared to

20% in the US

and

19% in the rest of Europe

Importance of infrastructure in innovation

But while many may be strategically prepared,
many payments organizations simply don't have the infrastructure in place,
leaving them exposed as expectations accelerate.

Across the industry, the groundwork is not built for innovation, at a time when customer expectations, regulatory requirements and competitive pressures are intensifying.

There exists an IT modernization lag in the payments industry, with only 20% using cloud-native, real-time data systems to support resilient operations.

Most aren't there yet, with 60% in the process of moving from legacy systems to modern platforms and 19% using partially modernized systems with limited interoperability.

And 2% of firms continue to rely on legacy and on-premise infrastructure.

SPOTLIGHT

Innovation divide: Big dreams, bigger gaps

Payments executives are leaning hard into innovation, with 58% favoring bold new methods over tweaking legacy systems and 87% fearing they'll lose customers without instant payments. Their ambitions are clear – especially around agentic AI and other transformative technology.

But readiness is another story. Only 20% have modernized their data infrastructures to support real time, scalable innovation. About 2 in 5 (43%) are aware they're unprepared for the compliance complexities and regulatory uncertainties that come with an autonomous future.

This is resulting in a widening gap between leaders' aspirations and their operational realities. Big dreams are driving strategy. But without stronger infrastructure and governance underpinning it, execution may fall short.

Conclusion

The future is agentic

Artificial Intelligence is already embedded in payments where it powers routing, fraud detection, personalization and the first wave of autonomous financial agents. Its potential to redefine how the world gives and gets its payments is unfathomable.

This promise comes with profound risk. Nearly all payment executives (91%) express concern about AI's pitfalls, and 99% worry about deploying AI agents. From hallucinations and synthetic fraud to data leakage and erosion of customer trust, the vulnerabilities are real.

Ambition is running ahead of readiness. While 17% already operate autonomously and more than half of organizations (52%) expect to be operating autonomously within two years, only 20% have the modernized infrastructure required to sustain that transformation. Without strong governance, resilient data systems and customer trust, the future of AI in payments could fracture under its own weight.

Mixing high stakes and high risk can make folly of much needed innovation. By aligning ambition with governance and investing in infrastructure, payment organizations can lead as the digital era gives way to the agentic era — building systems that are not only smart and responsive, but **responsible, secure and resilient.**

About Wakefield Research

Wakefield Research is a leading, independent provider of quantitative, qualitative and hybrid market research for thought leadership and strategic insights. Wakefield Research is a partner to the world's leading brands and agencies, including 50 of the Fortune 100. We conduct research in nearly 100 countries and our surveys appear regularly in top-tier media. Learn more at **www.wakefieldresearch.com**

Methodology

The HCLTech Survey was conducted by Wakefield Researchamong 600 decision-makers at companies that deal with cards, payments and payment processing who are Vice President-level and higher reporting to C-suite, with 80% of respondents being senior decision-makers, in the US, UK, Ireland, Denmark, Finland, France, Germany, Netherlands, Norway and Sweden. Results of any sample are subject to sampling variation. The margin of error for this study is +/-4.0% in the global sample; +/-5.7% in the US sample, +/-6.9% in the Europe sample, and +/-9.8% in the UK and Ireland sample.

HCLTech | Supercharging Progress™