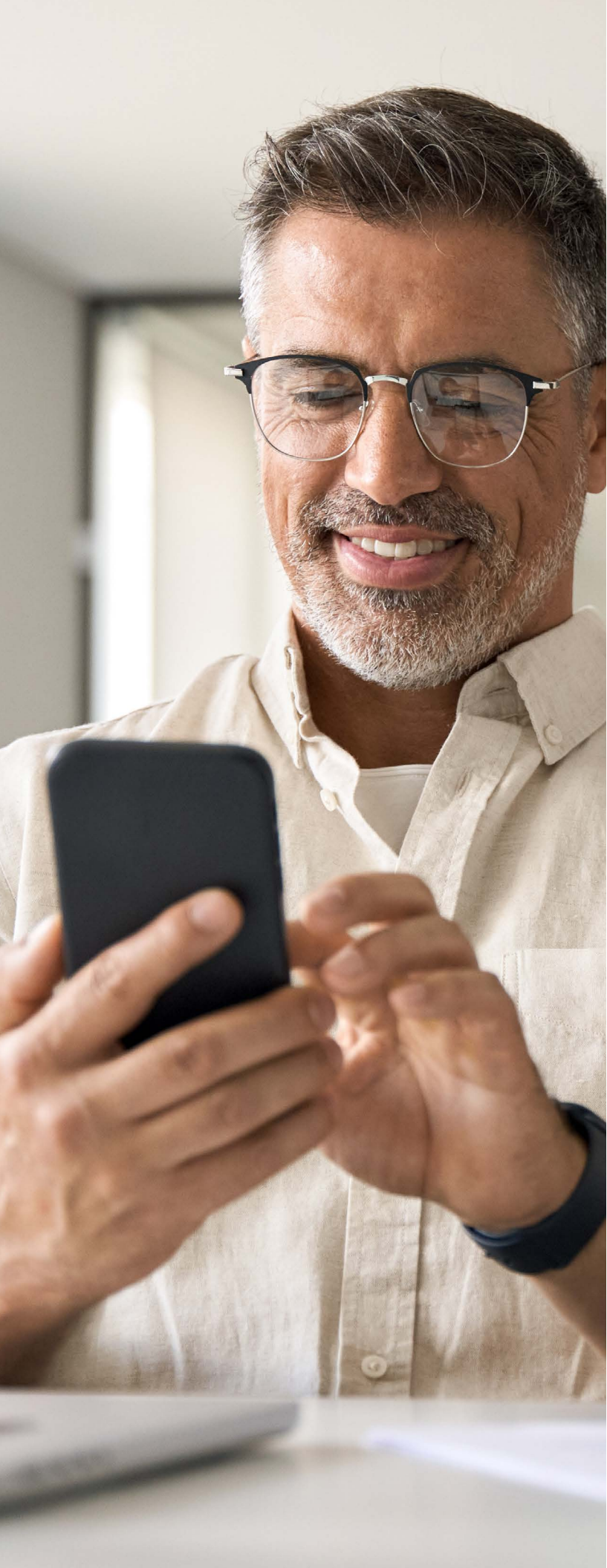




# Current Perspectives on the Evolution of Payments

Five areas that will see accelerated activity in payments and transaction modernization—Kyndryl financial services advisory





## Introduction

The last few years have seen an unprecedented pace of change in the payments industry. Modern technology with digital, contactless forms of payment has enabled the transition from cash and paper to digital payments. This was accelerated with the pandemic.

The post-pandemic environment has seen rapid innovation fueled by consumer demand. New business models have evolved, resulting in tremendous growth in payments, such as ease of payment, pay anytime and anyone from anywhere, ubiquity and seamless experiences.

## Challenges and trends

There is increasing focus on containing the risks associated with this rapid change while continuing to deliver innovative and disruptive payment methods. Some of the most talked-about topics, such as digital currencies, wallets, and real-time payments, will continue to garner attention in the next few years.

## Five areas driving evolution of payments

Accelerated activity is expected in the following five aspects, which are expected to contribute to the current evolution of payments and transactions: buy now pay later (BNPL) regulation, generative AI, embedded payments, proactive fraud prevention and ESG initiatives.



# 01

## Embracing regulations in BNPL

BNPL has gained much traction in the United States in the past three or four years. The US BNPL market is growing at a compound annual rate of 31%, potentially exceeding USD 8 billion in four years<sup>1</sup>. For example, BNPL loans used for e-commerce purchases on the first Monday after Thanksgiving in 2023 were 42% over the same period in 2022<sup>2</sup>. Initially, this started with innovative players offering BNPL services, such as Klarna and Afterpay, in collaboration with merchants. However, large credit and lending organizations like American Express and Citibank are now using this to attract new customers, penetrate new segments, and increase transaction volume. Citi has recently launched Citi Pay and Citi Pay Installment Loans to sell big-ticket items outside of traditional credit cards. There are also other white-labeled BNPL solutions to meet merchants' needs.

Both US federal and state government agencies have exhibited renewed interest in BNPL business operations. In 2021, the Consumer Financial Protection Bureau (CFPB) announced an extensive market inquiry to examine the business practices of BNPL providers.

Several US states are also acting. California, for instance, has already regulated BNPL under its California Financing Law, which requires BNPL providers to be licensed. Legislation to regulate BNPL products has been proposed in New York, while several other states are contemplating similar moves.

There is potential for more regulatory activity to govern the business practices of BNPL providers—both fintech and financial institutions—to provide for similar consumer protection as credit cards that enables better financial controls (underwriting, fees, charges, terms, and more) and standardization. This could significantly impact how BNPL is currently being applied—both from an operating model and IT systems perspective. How BNPL providers adapt to this will be important. Early adopters who embrace these changes will be expected to gain advantages over those who wait and see.

# 02

## Impact of generative AI

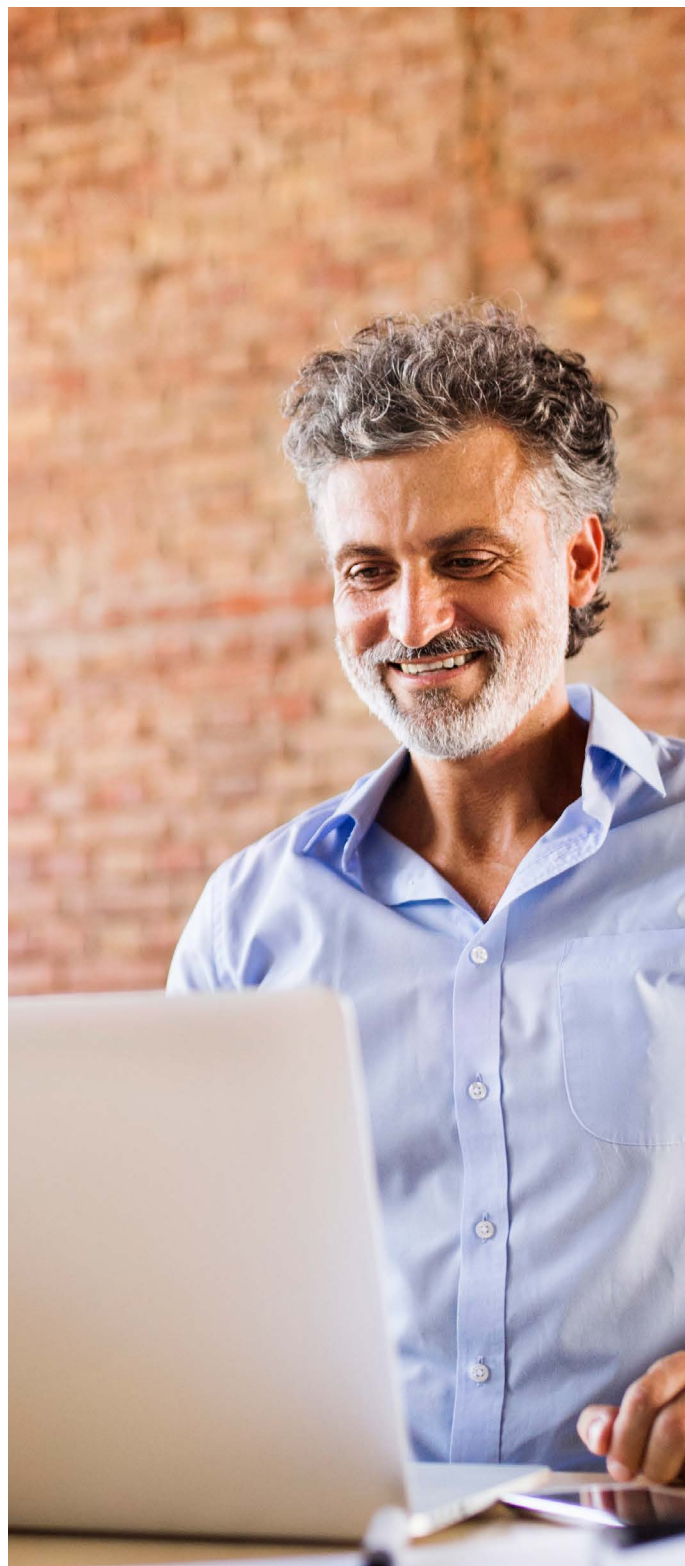
With the launch of OpenAI's ChatGPT in 2022, we have seen an explosion of activity in generative artificial intelligence technology. This has caught the attention of businesses, investors, consumers, and governments alike. Organizations have rapidly started experimenting to tap into the potential value that generative AI offers. Microsoft® has embedded ChatGPT and Copilot in Microsoft Office®. Google has integrated Bard with its search engine.

According to a McKinsey report, generative AI features could add as much as USD 4.4 trillion to the global economy annually<sup>3</sup>. The significance of generative AI technology and its vast potential is not being ignored.

As experimentation leads to use case-based leverage, we will see generative AI technology being utilized in every aspect of human life where "insightfully generated content," including text, graphics, audio, and video, is needed. Industries such as airlines, finance, retail, hospitality, healthcare, and more are identifying use cases where generative AI can add value or lead to lower operations costs and potentially new revenue streams.

The payments industry can gain significant advantages by adopting generative AI capabilities. There could be many rich applications of generative AI across the payments value chain. However, some selected use cases which might derive quick benefits include:

- a. Customer service:** generative AI can be integrated with chatbot-based servicing to provide more meaningful and insight-driven support. It gives customer service agents dynamic, real-time insights and recommendations, which can lead to higher customer satisfaction rates.
- b. Customer acquisition:** generates more localized and hyper-contextual marketing material to the target segment and demographics. This is expected to lead to stronger hit rates for applications on products such as cards, loans, or mortgages.
- c. Regulations:** scans for new rules and updates to existing regulations and provides an impact analysis report based on which actions could be taken. This is expected to reduce the risk of non-compliance and avoid potential penalties.
- d. Reconciliation:** reconciles payment transaction activity in real-time through its life cycle. Is expected to eliminate exception processing, so reducing operational costs.



The next two years will be pivotal for payment processors and providers, where generative AI will likely become deeply integrated with business processes to provide novel opportunities. Consumers will gravitate towards those companies providing exceptional products and services leveraging generative AI technology.

# 03

## Growth in embedded payments

Over the last decade, there has been an unprecedented focus by businesses to provide customers with seamless and frictionless transaction experience. There have been few more active areas of innovation than the evolution of payments to meet customer demands. Embedding payments into core business processes is one such form of evolution.

Uber initiated this by allowing passengers to pay for rides seamlessly, in-app, without having to fumble for a credit card. Others followed, and now there are several examples across industries that provide the same experience. Instances include Apple Pay for making purchases on the Apple App Store and multiple iPhone applications, smart toll collection, or paying for movie rentals through cable providers.

We will see rapid growth in investments for embedded payments. Embedded payments revenue for embedded finance vendors is expected to surpass USD 59 billion globally by 2027, up from USD 32 billion in 2023<sup>4</sup>. This presents tremendous opportunities for financial institutions and fintechs alike.

We will also see mainstream penetration of embedded payments in consumers' daily lives, ranging from subscriptions to travel and healthcare to retail.

With the advent of 5G communication technology and Internet of Things (IoT) devices, we will see smart appliances with built-in sensors that pay for consumables automatically. Examples include printers that self-order supplies (HP is already doing this with their instant ink program), cars that seamlessly pay at gas stations, and virtual gaming devices that purchase gaming sessions or points for users.

We expect to see a symbiotic growth relationship between embedded payments and IoT with both facilitating and promoting more seamless experiences. Financial institutions, fintechs and other organizations involved will be able to reap the benefits. This includes enhancing customer experiences, automating manual efforts, and opening revenue streams, which can lead to customer stickiness, revenue and profitability.

However, implementing such solutions while addressing concerns of data security, privacy, transaction traceability, complex integrations, and regulations requires a holistic approach. Organizations that create a holistic strategy around customers are more likely to realize benefits and market share for long-term advantage.



# 04

## Proactive fraud prevention

Fraud management has always been the most critical aspect of a safe and secure payment transaction. Curtailing fraud and ensuring it remains manageable is the cornerstone of trust that payers and payees must develop for a vibrant payment ecosystem to flourish.

Not surprisingly, as in past years, fraud prevention management will continue to evolve with the advancement of technology and processes:

- As real-time payment becomes mainstream in the US, the time window to prevent a fraudulent transaction has vanished.
- Corporations are evaluating the use of generative AI technology in their fraud detection and prevention models.
- Fraud prevention models must be intelligent enough to make dynamic, real-time updates to business rules in order to play a more proactive role.
- Payment processors are deploying advanced AI models with machine learning (ML) capabilities at payment initiation and end-point settlement.

These developments are especially important as transaction volume shifts online in the post-pandemic environment. In North America, ecommerce merchants spend about 10% of their revenue managing payment fraud<sup>5</sup>. This is a significant expense considering the eroding margins in this ever-competitive field.

How fraudsters evolve will also be a critical discussion topic. With the wide availability of novel technologies, fraudsters are getting increasingly organized and sophisticated. Advanced AI and ML fraud prevention models will need to be enriched with data from multiple sources for financial institutions to get ahead in the contest.

The availability of large data sets that provide the context of payments and transactions (customer information, payment information, purchase information, and more) will be vital to enabling newer fraud prevention models to predict fraud in real-time accurately. More robust authentication mechanisms will gain adoption, such as 3D Secure authentication, multi-factor authentication (MFA) and identity verification services for more accurate fraud detection and minimal false positives.



**With the wide availability of novel technologies, fraudsters are getting increasingly organized and sophisticated. Advanced AI and ML fraud prevention models will need to be enriched with data from multiple sources for financial institutions to get ahead in the contest.**

# 05

## Focus on ESG imperatives

There have been heightened concerns for the environmental, social and governance (ESG) impact of economic growth. Organizations worldwide have become more sensitive towards sustainability and how the negative impact is minimized, be it carbon footprints of doing business, diversity and inclusion in workplaces or geopolitical developments.

We should continue to see more focus on measures that will improve sustainability and reduce or eliminate the negative impact of running a business from an ESG perspective. As they involve the movement of monies, payments and transactions are at the front and center of these discussions. With greater awareness, customers will prefer companies that support such initiatives. This will drive enterprises to create strategies for products and services with ESG as an essential factor.



### Environmental

The advent of digital payments has reduced cash, paper checks and plastic cards—steps in the right direction. However, the flip side of this is the setting up of huge powerhouses of data centers, processing centers, and networks that consume power and contribute to global warming. Measurement of the impact of such payment infrastructure on the environment has been limited, if at all.

We will see a more structured approach to measure and minimize the impacts. Most large organizations are setting targets to become carbon neutral in the next few years. We will see adoptions of this sentiment in medium-sized businesses as well. Combined with regulations and customer preferences, there will be accelerated adoption of cleaner and greener technologies.



### Social

The inequitable distribution of wealth has been an acute point of discussion. With digital payments and transparency, this reality has become starker. Most large organizations earmark a yearly budget to invest in social causes. We will potentially see more such measures from corporations to advance their social agendas, not only to enhance their reputations but also to make a meaningful impact on disadvantaged strata of society.



### Governance

Funding and payments to prevent unscrupulous activities, including terrorism, have always been on government agendas. Advancements in traceability through the adoption of digital payments have been a boon for governments in countering such undesirable activities.

With real-time cross-border payments becoming a reality, governments will want greater control over these transactions. Similarly, enhanced controls and guardrails will be set up to regulate alternate payment methods, such as business-to-business and crypto-based payments.

# A look ahead

This is a time of innovation and evolution of payment technologies globally. From a consumer perspective, there will be many more options and choices. Financial institutions will invest more in acquiring the expertise and resources as they focus on modernization efforts to stay competitive with the latest payments and transaction capabilities.

## About Kyndryl

Kyndryl is the world's largest provider of IT infrastructure services serving thousands of enterprise customers in more than 60 countries. We design, build, and manage the mission-critical systems that the world depends on. As a focused, independent company, we're building on our foundation of excellence by bringing in the right partners, investing in our business, and working side-by-side with our customers to unlock their potential.

## For more information

To learn more about modern [payments and transaction solutions](#) can help your organization, visit [kyndryl.com](https://kyndryl.com)

---

### Author:

Sundeep Kapoor  
Kyndryl Consult Partner,  
Financial Services, Payments





# kyndryl.

© Copyright Kyndryl, Inc. 2024

Kyndryl is a trademark or registered trademark of Kyndryl, Inc. in the United States and/or other countries. Other product and service names may be trademarks of Kyndryl, Inc. or other companies.

Microsoft, Azure, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

1. [Researchandmarkets.com](https://www.researchandmarkets.com)
2. Adobe Analytics
3. [What's the future of Generative AI? An early view in 15 charts - McKinsey.com](https://www.mckinsey.com)
4. [Embedded Finance: Key Trends, Segment Analysis & Market Forecasts 2022-2027](https://www.juniperresearch.com) by Juniper research
5. [2023 Global Ecommerce Payment and Fraud Report](https://www.cybersource.com) Cybersource