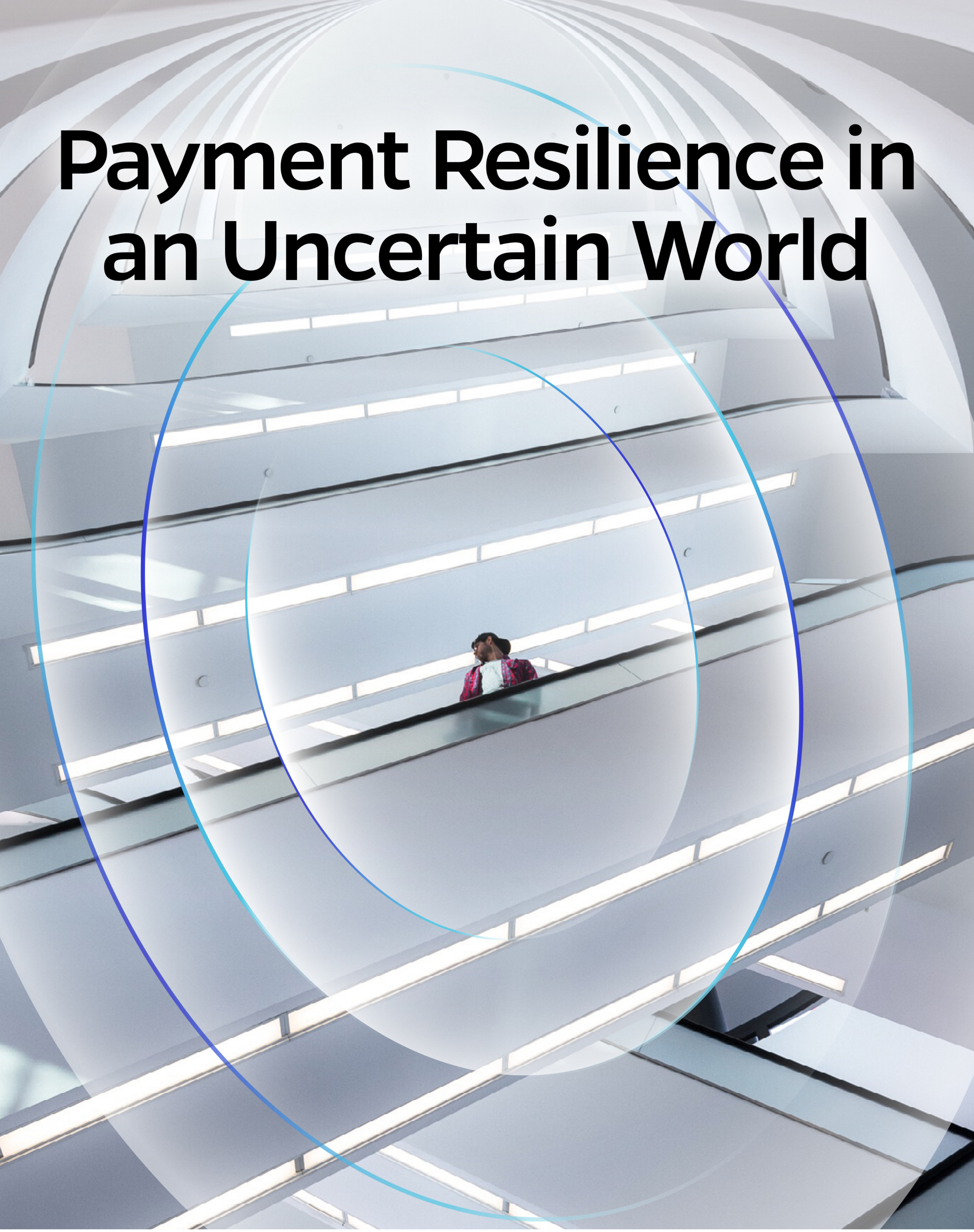
Payment Resilience in an Uncertain World



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Introduction

Consumer-facing businesses are operating in increasingly unpredictable conditions. From extreme weather and power failures to cyber attacks and system outages, disruption is no longer the exception, it's becoming the norm.

Recent high-profile incidents at major retailers and brands have exposed just how fragile payment infrastructure can be, leading to lost transactions, customer frustration, and operational strain.

At the same time, customer expectations have never been higher. Payments are now expected to be instant, invisible, and fail-proof, especially as the shift to digital accelerates. When systems go down, even briefly, it's not just revenue at risk. It's trust, reputation, and future loyalty.

This research is the first of its kind to quantify the impact of payment disruption across UK retail, hospitality, and leisure. Drawing on proprietary survey data, outage patterns, and frontline experiences, it explores where the biggest risks lie, how consumer behaviour shifts in response, and what steps businesses are taking to improve resilience.

From rising digital dependency to widening backup gaps, this report brings together five critical insights to help leaders understand, prepare for, and respond to payment system failures.

In a world where trading conditions are increasingly volatile, payment resilience has become a business imperative.

£1.6 billion of UK retail and hospitality sales at risk from payment failures

Frequent and interconnected failures are placing pressure on day-to-day trading

Payment system failures are putting **£1.6 billion** in annual sales at risk across UK retail, hospitality and leisure. These aren't one-off incidents, they're a recurring operational challenge that disrupts service, damages trust and hits revenue.

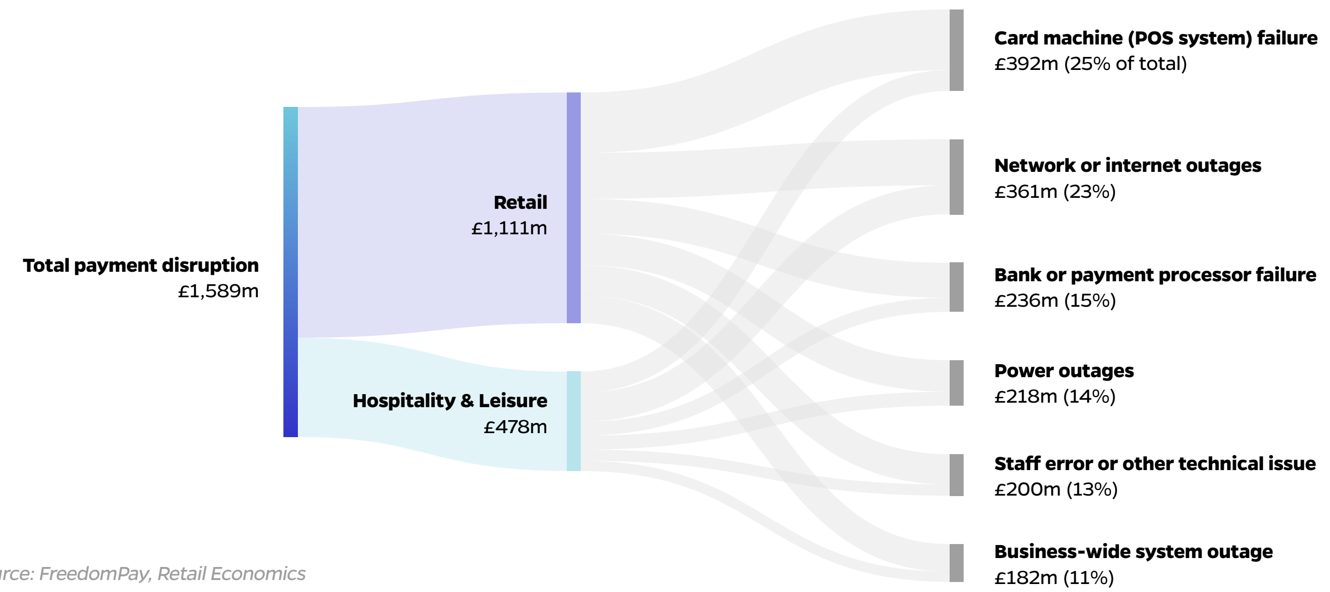
On average, businesses report over **five major outages each year**, with frequency highest among mid-sized and larger operators running multiple payment gateways, legacy systems, or hybrid setups that introduce more potential failure points (Fig 2).

61% of payment disruptions occur during peak trading, when footfall, operational pressure and seasonal demand collide and when the cost of failure is highest.

Mitigating risks depends on strengthening three critical areas:

- **Card machine reliability:** Failures here account for £392 million in lost sales opportunity, making robust hardware and in-store support essential.
- **Network infrastructure:** Internet outages represent £361 million in at-risk revenue, highlighting the need for stable connectivity and fallback networks.
- **Power backup:** Power-related failures put £218 million at risk annually, showing the value of on-site backup solutions that keep systems online.

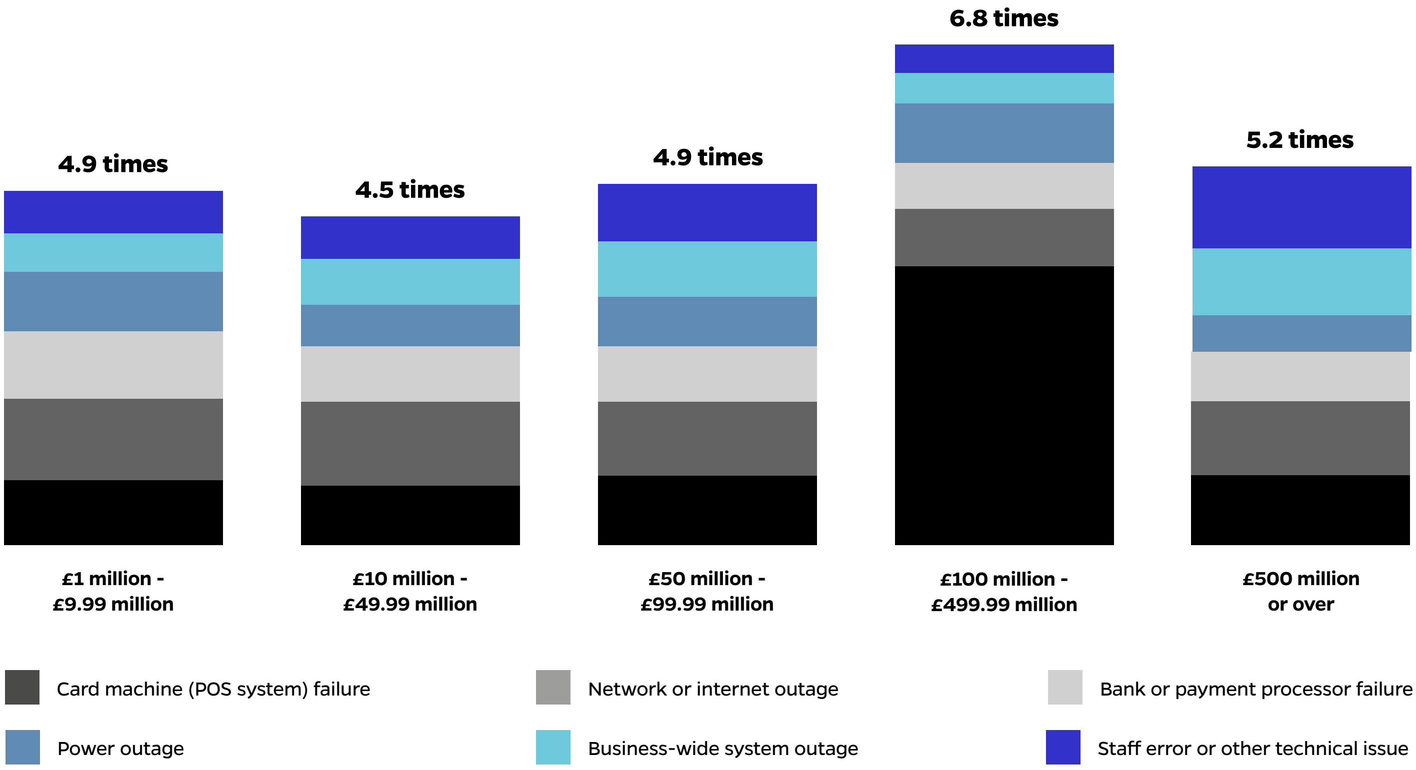
Fig 1: The cost of disruption: Retail and hospitality payment failures by source



Source: FreedomPay, Retail Economics

Key Insight #1

Fig 2: In the past 12 months, how many times, if ever, has your store/venue experienced a payment system disruption affecting customer transactions?



Source: FreedomPay, Retail Economics

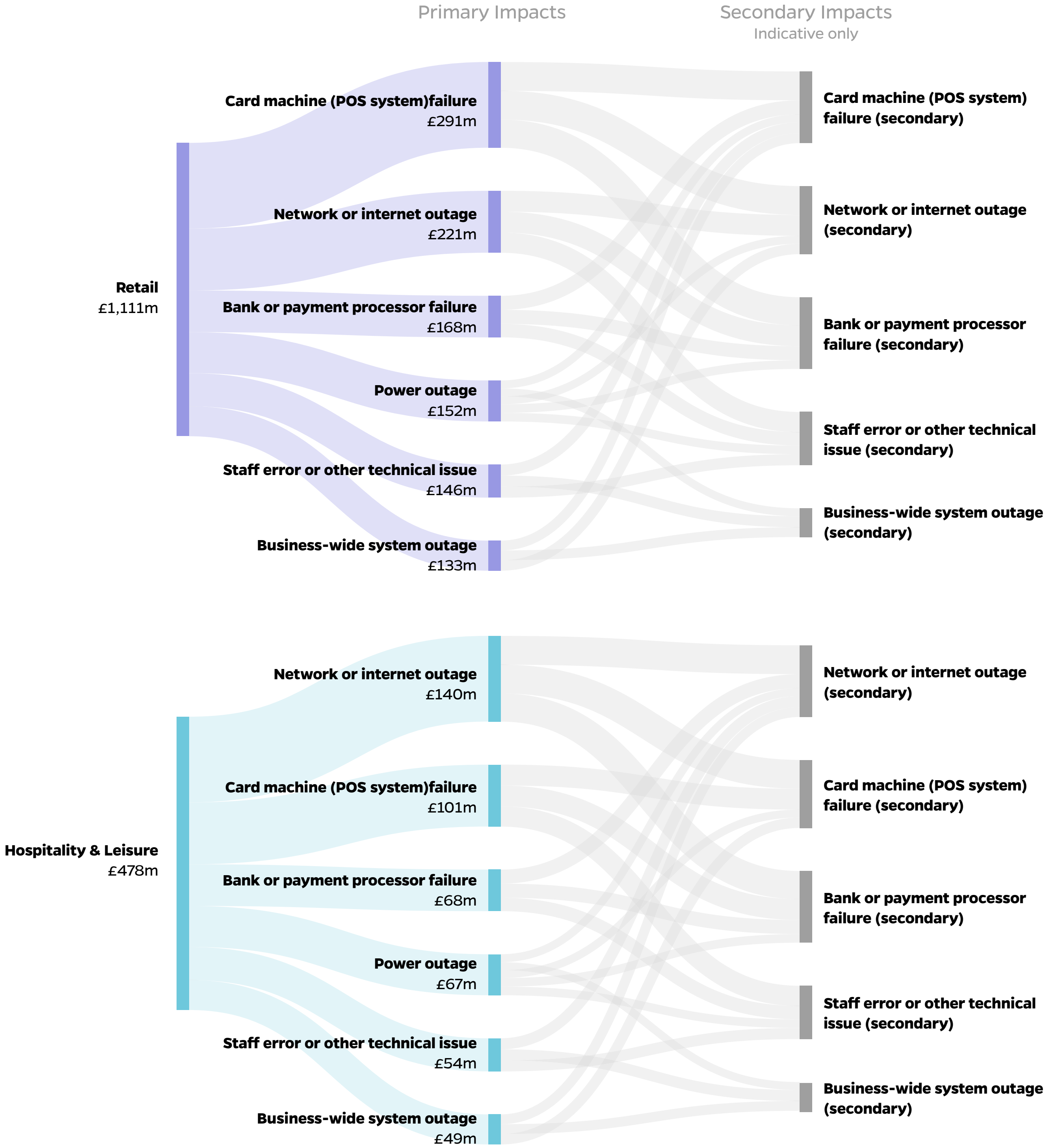
However, these failures rarely occur in isolation. One incident can ripple across the entire payment stack, disabling terminals, Wi-Fi, mobile ordering, cloud-based services and digital tills in one go. It's this system interdependence that amplifies the true commercial impact.

Strategic takeaway: Patchwork fixes aren't enough. Businesses need end-to-end resilience: integrated systems that isolate faults, maintain uptime, and keep transactions flowing when it matters most.

Key Insight #1

Cost of payment disruption by industry

Retail accounts for £1.1 billion of the total £1.6 billion disruption cost, compared to £478 million in Hospitality & Leisure. The heavier impact reflects retail's higher transaction volumes, larger store networks, and more tills in operation - all of which increase the number of potential failure points.



Source: FreedomPay, Retail Economics

When systems go down, consumers don't stick around

Most consumers will accept up to 6 minutes of disruption, with 22 minutes the absolute limit. But the average outage lasts 84 minutes – far beyond the point of abandonment.

Today's customers are impatient and payment delays are one of the fastest ways to lose them. Friction at the checkout doesn't just risk a lost sale. It damages trust, drives churn, and puts future sales at risk.

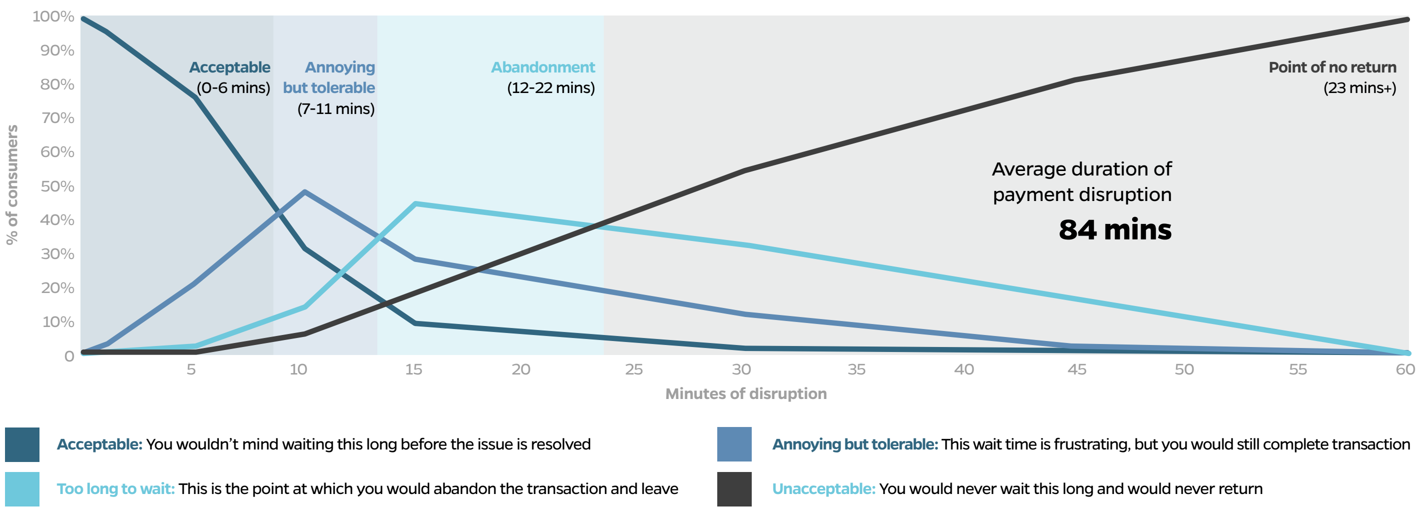
To understand consumer tolerance, we used a Van Westendorp-style model to model wait-time responses during a payment disruption (Fig 3).

Four clear behavioural thresholds emerged:

- **Acceptable (0–6 mins):** Most shoppers will tolerate short delays without issue.
- **Annoying but tolerable (7–11 mins):** Frustration builds. Some customers start to abandon, but most still complete the transaction.
- **Abandonment (12–22 mins):** This is the danger zone. By 22 minutes, most consumers say they would walk away and abandon the purchase.
- **Point of no return (23 mins+):** By 34 minutes, most say they wouldn't just leave - they would never return to the business, creating lasting damage to loyalty.

But here's the problem: the **average payment disruption lasts 84 minutes** – nearly **four times longer** than consumers are willing to wait.

Fig 3: Consumer tolerance thresholds during payment failures



Source: FreedomPay, Retail Economics

Key Insight #2

Businesses overestimate consumers patience

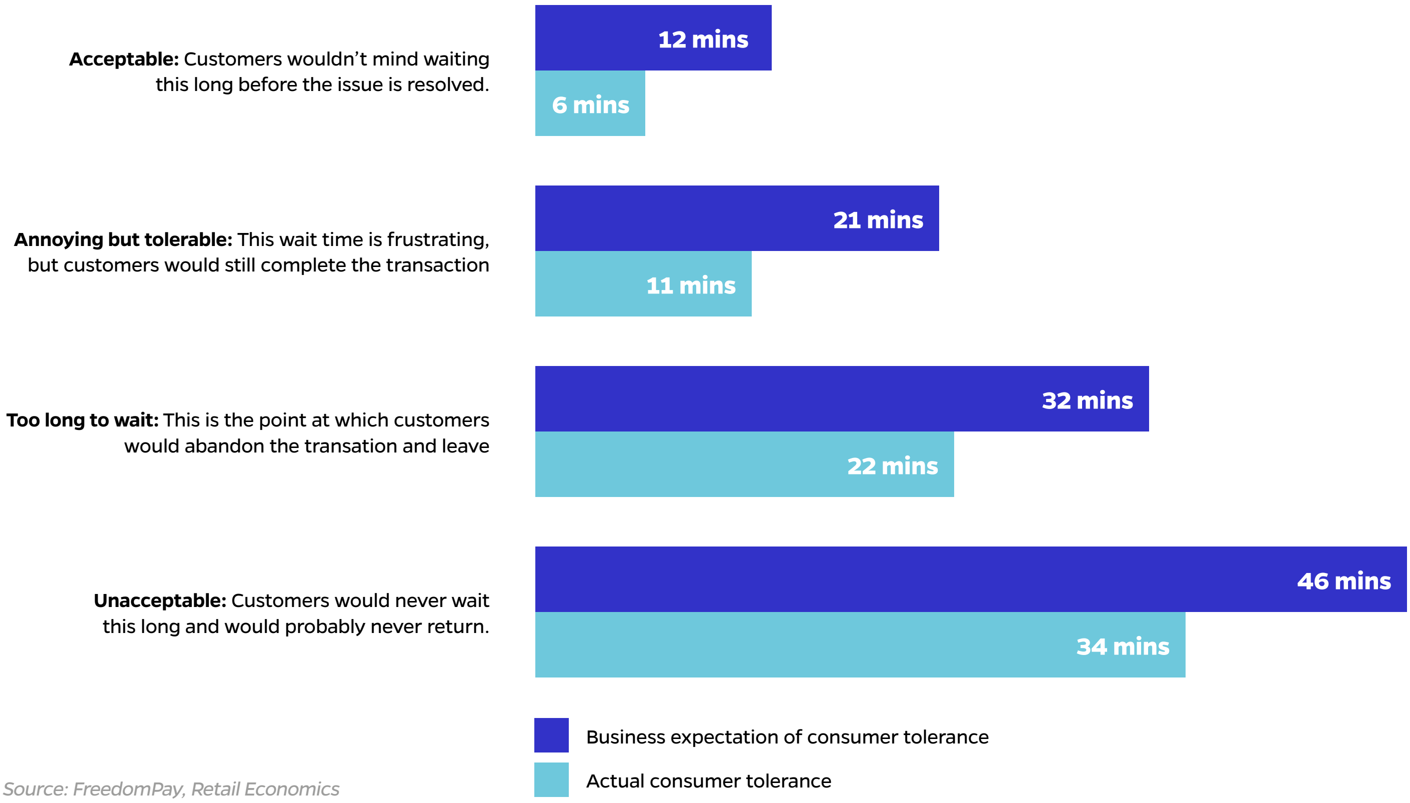
There's also a disconnect between businesses and customers. Across every threshold/tipping point, businesses overestimate how long consumers are actually willing to wait (Fig 4).

This gap has serious consequences. Many businesses aren't resolving issues quickly enough and they're underestimating how quickly they lose customers. In most cases, the customer is gone long before the system comes back online.

The result? Lost sales. Lost loyalty. Missed expectations. All avoidable with faster recovery and smarter system resilience.

Fig 4: Expectations vs reality: The limits of customer patience

Q: In the event of a payment system outage at a store or venue, after how many minutes would you consider the delay to be...



Source: FreedomPay, Retail Economics

Strategic takeaway: Tolerance has a time limit. Businesses must align system performance with customer expectations - detecting, resolving and recovering fast to protect revenue and reputation. Dynatrace helps reduce outage durations, detect and resolve issues in real time, and restore service before it's too late, protecting both revenue and reputation.

Resolve outages early or pay the price

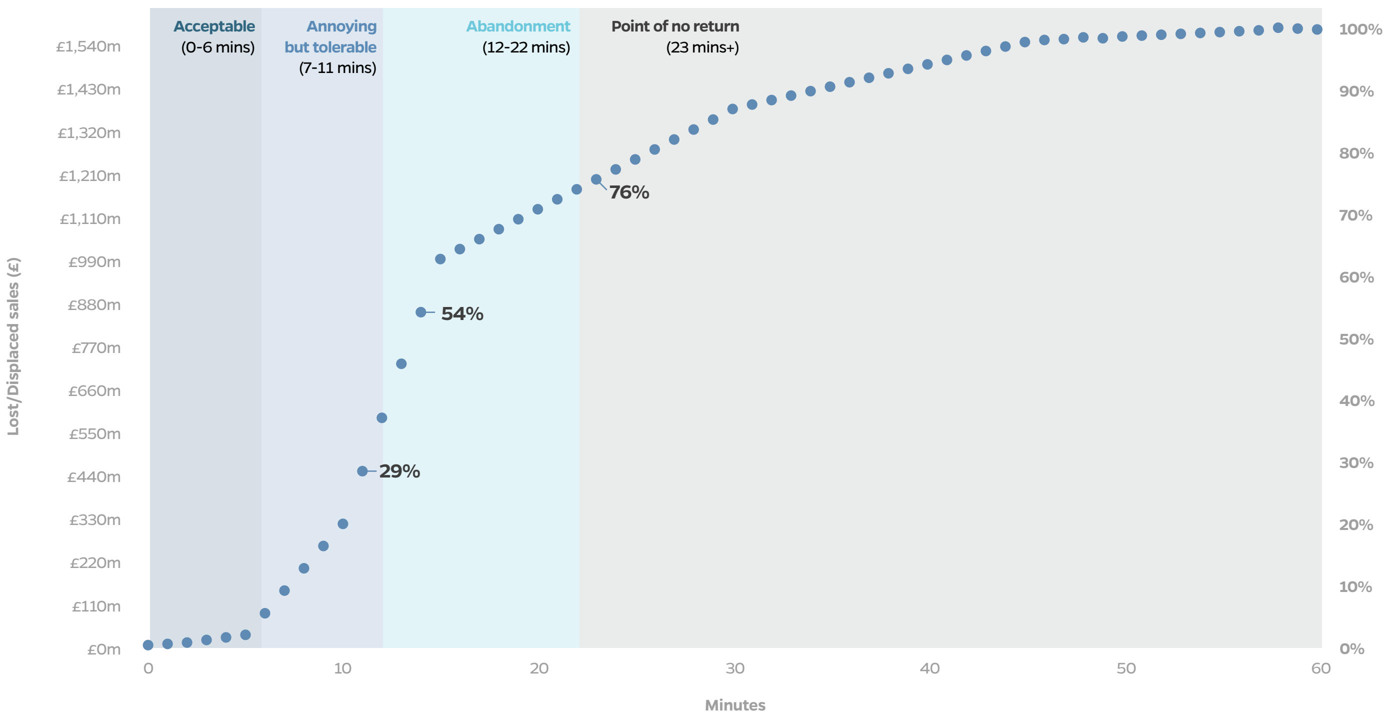
If payment systems are restored in under 10 minutes, businesses can avoid over 80% of the total financial impact

The financial impact of payment outages builds rapidly and peaks well before most systems recover. While delays under 6 minutes are broadly tolerated, disruption beyond that triggers a steep climb in lost sales (Fig 5).

The charts reveals a clear tipping point, most financial damage is front-loaded, and resilience solutions must act fast to contain exposure early:

- In the first 6 minutes, customers are tolerant and potential losses remain limited – less than 2% of the total.
- From minutes 7–11, frustration builds quickly. The risk of lost sales accelerates sharply – averaging £73 million per minute during this critical window.
- Between minutes 12–22, losses continue to rise. By minute 22, cumulative losses reach £1.17 billion, or 74% of the total at-risk revenue.
- After 22 minutes, the rate of loss slows. But by then, most of the damage is already done as customers have walked away.

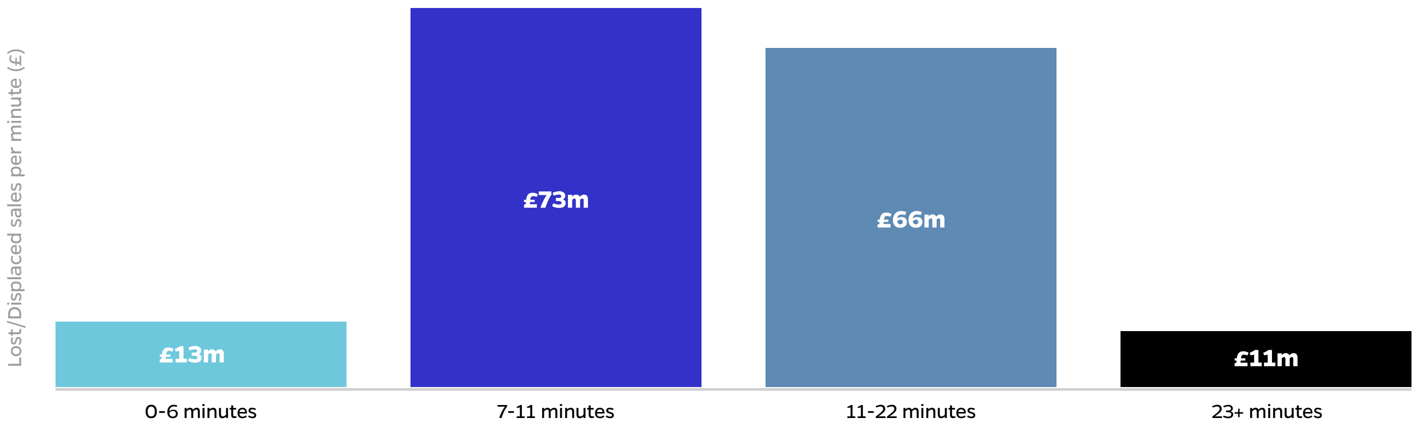
Fig 5: How revenue impact builds over time during a payment disruption



Source: FreedomPay, Retail Economics

Key Insight #3

Fig 6: Revenue at risk per minute rises sharply between minutes 7 and 22



Source: FreedomPay, Retail Economics

Strategic takeaway: If payment systems are recovered within the first 10 minutes, businesses can avoid over 80% of the total financial impact. Wait longer, and the cost escalates fast – both in sales and customer trust. Retailers don't have time to react – they need systems in place to resolve issues fast.

Cash isn't the safety net it used to be

Most consumers rely on digital payments, but in the event of an outage, few carry enough cash to complete their purchase

The vast majority of in-store transactions today are made using digital methods. Credit cards, debit cards and mobile wallets now account for almost three in four in-person transactions, reflecting the extent to which physical cash has been replaced by faster, more convenient options.

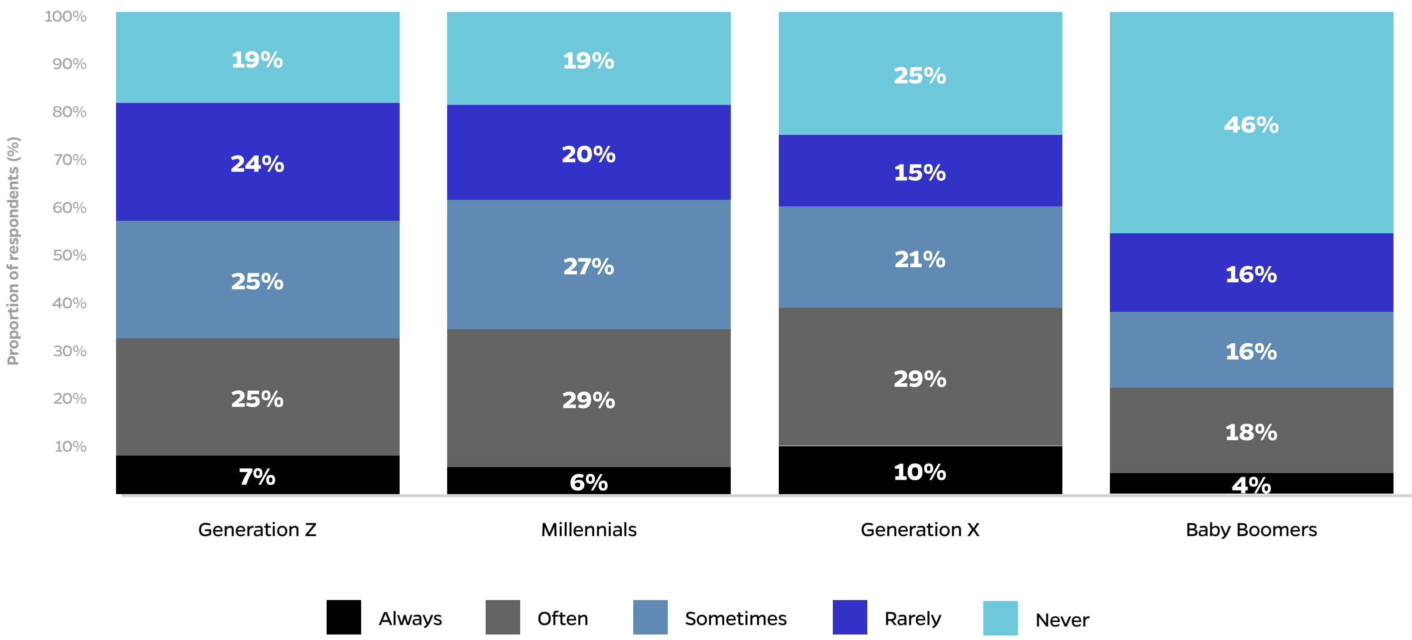
This shift has brought clear benefits for consumers and businesses alike, but it comes with a hidden risk. When digital payment systems fail, most shoppers are left without a reliable fallback.

Less than 30% of consumers always carry cash when visiting shops, restaurants or leisure venues. Among younger generations, it's even lower. Just 19% of Gen Z and Millennials say they always carry cash, compared with 46% of Baby Boomers (Fig. 7).

Even among those who do, the average amount carried (£35) is not enough to cover the typical in-store spend (£47), leaving many unable to complete their purchase (Fig. 8).

Fig 7: Today's consumers rarely carry cash: Less than 30% of consumers always carry cash when visiting shops or restaurants

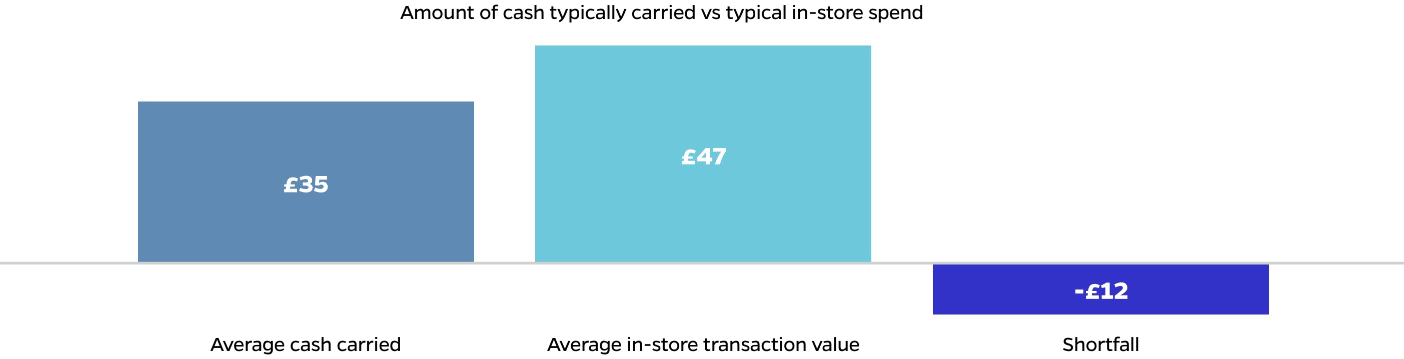
Q: How often do you carry cash when visiting shops, restaurants, or leisure venues? By age



Source: FreedomPay, Retail Economics

Key Insight #4

Fig 8: And when they do – it's not enough to cover their purchase. The average consumer holds £35 in cash – lower than the average spend per visit.



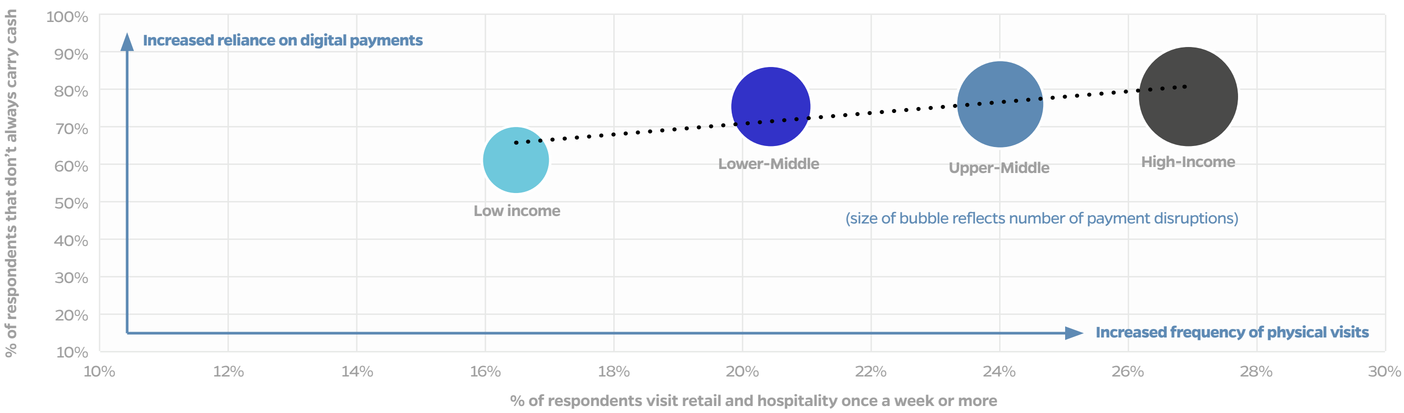
Source: FreedomPay, Retail Economics

High income consumers most exposed to payment outages

What's more, those who rely most on digital payments are also the most frequent and valuable customers. Higher-income groups visit physical retail and hospitality venues more often, carry less cash, and report more frequent payment disruptions (bubble chart). This makes them disproportionately affected when systems go down.

Strategic takeaway: As digital payments become the norm, the stakes of system failure grow. Most shoppers don't carry a reliable backup – particularly younger and higher-spending customers who rely most on fast, seamless transactions. Building resilience around digital infrastructure is no longer optional – it's essential to protect revenue and customer trust.

Fig 9: Frequent visits and minimal cash-carrying make affluent shoppers vulnerable to disruptions



Source: FreedomPay, Retail Economics

Further progress needed on payment resilience

1 in 5 retail and hospitality businesses lack a secure digital backup when systems fail

Consumers expect businesses to be prepared when payment systems go down. In fact, 68% say a backup payment method should be in place. And many businesses are responding – but coverage isn't yet complete.

- **22%** of businesses say they have no backup method beyond cash – a clear risk as cash usage declines.
- **7%** have no fallback at all, leaving them fully exposed during system outages.

Even among those with a plan, resilience varies:

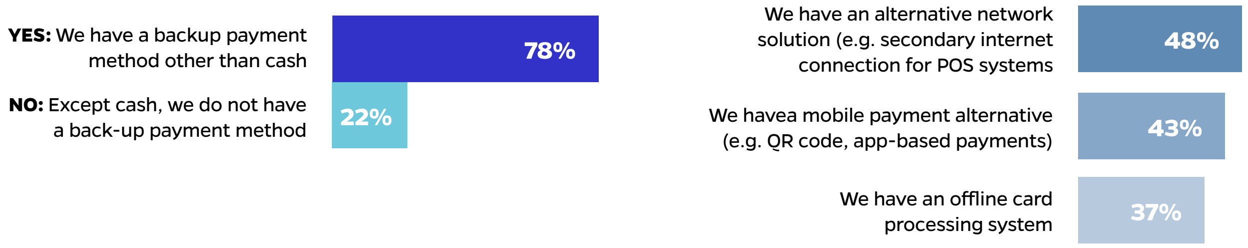
- **48%** have invested in secondary internet connections to keep POS systems online.
- **43%** have adopted mobile-based backup options, such as QR codes or app checkouts.
- **37%** offer offline card processing, helping to maintain transactions during connectivity failures.

This mix of solutions shows good intent but also highlights a fragmented approach. Not all businesses are equally equipped to handle disruption, especially during peak periods or high footfall events.

And it's not just about revenue. When asked what they worry about most during a payment outage, **53% of businesses pointed to trust and reputation**, ahead of revenue loss or operational disruption. That concern is justified: one in three consumers say a single payment failure reduces their trust in a business.

Fig 10: Backup systems are in place, but digital payment resilience varies

Q: Does your store/venue have a backup payment method in place in case of a payment system failure?



Strategic takeaway: Payment resilience isn't just about business continuity, it's a competitive differentiator. Businesses that build layered, digital-ready fallback systems will be best placed to recover quickly, retain customer confidence, and protect long-term revenue.

Conclusion

Payment disruption is no longer a rare inconvenience. It is now a significant operational risk with serious commercial consequences. This research estimates that up to £1.6 billion in potential sales is lost each year across UK retail, hospitality, and leisure due to payment system outages.

And the losses escalate quickly. Over half of this impact occurs by minute 14, and three quarters is lost within the first 22 minutes - well before most systems are back online.

The findings highlight how exposed the modern payment experience has become. Consumers expect fast, seamless transactions, but most will wait no more than six minutes before frustration sets in. After that, the risk of abandonment rises rapidly.

At the same time, digital dependency is growing. Most consumers now rely on cards or mobile wallets, and few carry enough cash to complete a purchase when systems fail. Yet 1 in 5 retail and hospitality businesses still rely solely on cash as a backup, and 7% have no fallback in place at all.

While many businesses are investing in solutions such as secondary networks, mobile alternatives, and offline card processing, resilience remains uneven. And in an increasingly volatile trading environment, partial preparedness is not enough.

Looking ahead, the path forward is clear. Businesses need to move beyond reactive fixes and invest in intelligent, integrated systems that can detect, respond to, and recover from disruption in real time. Solutions that combine secure infrastructure, dynamic failover options, and seamless customer experiences will not only minimise revenue loss, but protect brand trust at the moments that matter most.

About the research

This report combines proprietary survey data with economic modelling and outage pattern analysis to quantify the financial impact of payment disruption across UK retail, hospitality, and leisure.

The research draws on two nationally representative surveys conducted in April 2025: a consumer survey of **2,000 UK adults**, and a business survey of **250 retail and hospitality store and venue managers**, weighted by business size and format to reflect the structure of the industry. Together, these provide a detailed view of how payment failures affect both customer behaviour and frontline operations - from the frequency and duration of disruptions to wait time tolerance, fallback options, and abandonment rates.

To estimate the commercial impact, these findings were combined with industry data from the Office for National Statistics and historical power outage records from UK Distribution Network Operators, covering around 275,000 retail and hospitality premises. Outage scenarios were mapped against typical and peak trading periods, then layered with proprietary survey insights to assess the sales at risk.

The result is a robust, data-led model estimating that payment disruption could cost the UK retail and hospitality sectors up to £1.6 billion in potential lost sales annually.

For more information on the methodology, please contact Retail Economics.

About FreedomPay

FreedomPay's Next Level Commerce™ platform transforms existing payment systems and processes from legacy to leading edge and enables merchants to unleash the power of pay. As the premier choice for many of the largest companies across the globe in retail, hospitality, lodging, gaming, sports and entertainment, foodservice, education, healthcare and financial services, FreedomPay's technology has been purposely built to deliver rock solid performance in the highly complex environment of global commerce.

The company maintains a world-class security environment and was first to earn the coveted validation by the PCI Security Standards Council against Point-to-Point Encryption (P2PE/EMV) standard in North America. FreedomPay's robust solutions across payments, security, identity, and data analytics are available in-store, online and on-mobile and are supported by rapid API adoption. The award winning FreedomPay Commerce Platform operates on a single, unified technology stack across multiple continents allowing enterprises to deliver an innovative Next Level experience on a global scale. www.freedompay.com

About Dynatrace

Dynatrace is advancing observability for today's digital businesses, helping to transform the complexity of modern digital ecosystems into powerful business assets. By leveraging AI-powered insights, Dynatrace enables organizations to analyze, automate, and innovate faster to drive their business forward. To learn more about how Dynatrace can help your business, visit www.dynatrace.com, visit our blog and follow us on LinkedIn and X @dynatrace.

About Retail Economics

Retail Economics is an independent economics research consultancy focused on the consumer and retail industry. We analyse the complex retail economic landscape and draw out actionable insight for our clients. Leveraging our own proprietary retail data and applying rigorous economic analysis, we transform information into points of action.
Our service provides unbiased research and analysis on the key economic and social drivers behind the retail sector, helping to inform critical business decisions and giving you a competitive edge through deeper insights.

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