

Digital Wallets and the Pain of Paying: How Tap-and-Go Features Increase Impulse Buying

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Abstract

The wide spread adoption of digital wallets and that contactless tap-and-go kind of payment tech has, kinda overall reshaped the way consumers connect to money. This article looks at the mind behind it, the psychological levers through which “frictionless” payment systems, especially those NFC-enabled mobile wallets, end up amplifying impulse buying behaviour, you know. I draw on behavioural economics plus some neuroscience work, and also consumer psychology, to show how the lessening of the “pain of paying,” the separation of what gets consumed from financial awareness, and the small rush of pleasure that comes with smooth digital transactions together weaken spending self-control over time. Then there are global statistics to ground it all in context: as of 2025, more than 4.5 billion people worldwide use digital wallets, and that’s roughly 30 percent of total global point-of-sale transaction volume. Findings reported in peer-reviewed journals and institutional documents keep pointing in the same direction that cashless transactions, in particular one-tap mobile payments, make people spend more, remember less of what they spent, and end up making extra unplanned buys compared with cash users. The article also talks about how retailers shape incentives, how different generations seem more vulnerable, and what new regulatory plus behavioural countermeasures are now emerging, even if it’s a bit patchy. Overall, the conclusions matter for financial literacy teaching, consumer protection policy, and also the ethical design choices for payment technologies, because the details in the interface can really steer human choices.

Keywords: tap-and-go payments, pain of paying, contactless payments, digital wallets, impulse buying, cashless behaviour

I. Introduction

Think about the last time you tapped your phone to pay for something you hadn’t really planned to buy. Like maybe an extra coffee, a pair of headphones you noticed by the checkout counter, or some streaming subscription you said yes to on a whim. It went through so quickly, a tap, a beep, done, that it barely felt like money was actually leaving your hands. Honestly that mood is not accidental, it’s the result of decades of intentional design.

Digital wallets and contactless payment technologies arrived at a pretty extraordinary slice of economic history. In 2024, the total value of digital wallet transactions worldwide crossed \$10 trillion, and roughly 4.5 billion people, more than half of humanity, were using some kind of digital wallet by 2025 (Capital One Shopping Research, 2026). Meanwhile, the global mobile wallet market, valued at \$204.66 billion in 2024, is expected to climb to \$784.67 billion by 2032 (Fortune Business Insights, 2024). And this isn’t just abstract math on a page. It shows up in daily life: money has become, in a way, largely unnoticed, and when it turns less visible, people also adjust how they decide to spend it.

At the heart of this shift there’s a concept behavioral economists call the “pain of paying”, which is the psychological discomfort humans feel when they’re parting with money. Cash, yeah it hurts. Swiping a card hurts a little less, tapping a phone barely registers at all. Each move toward frictionless payments is basically a move toward more spending. Retailers already know this, payment tech companies know it too, and lately researchers and policymakers are starting to ask if consumers know it as well, or not really.

This article looks at how tap-and-go digital payment features mix with human psychology to nudge impulse buying. It follows the neuroscience that sits behind spending pain, surveys what the empirical evidence says about overspending when cash is out of the picture, then reviews how merchants use the payment design itself to trigger unplanned purchases. Finally it considers what consumers and regulators might do about it.

II. The Psychology of Paying: Why Cash Hurts and Tapping Does Not

2.1 The Brain on a Budget

When you hand over a €50 note at a market stall, something sort of interesting happens, in your brain. The anterior insula, a region linked with physical pain and disgust, starts to light up. You feel this mild but real

discomfort, like a small mental alarm that quietly says, this costs something real . That discomfort is often described as the pain of paying, a phenomenon that Prelec and Loewenstein first documented in a careful way in their 1998 paper in *Marketing Science* (Prelec& Loewenstein, 1998) .

And it's not, like some obvious flaw in human cognition. More like a feature. It is the brain's natural brake for impulsive financial decisions, a kind of warning signal that nudges you to pause, rethink, and sometimes just say no. fMRI studies , where they actually look at brain activity, support this idea. They confirm that paying with physical cash activates those pain-processing regions more strongly than card or digital payments (Thomas et al., 2011). The more abstract and far away the payment method feels, the weaker the neural response becomes, and the easier it is to spend.

Now mobile payments push this logic almost to the edge. Work in peer-reviewed journals suggests that, compared to cash, mobile payment not only reduces the pain of paying but may also bring about what researchers call the “pleasure of paying”, a reward-like neural pattern tied to the ease and the smoothness of a seamless checkout (Prelec& Loewenstein, 1998; ResearchGate, 2025). In two experimental studies using EEG measures, researchers observed that mobile payment increased purchase likelihood, and that effect showed up across both hedonic (pleasure-driven) and utilitarian (need-driven) products. So, in plain terms, tapping to pay doesn't only remove resistance it also adds positive reinforcement.

2.2 The Coupling Problem

A key reason cash feels so tangible is what economists call “coupling” ,the psychological link between the instant of consumption and the instant of payment. When you grab a meal and pay cash at the same time, the two moments get fused in your memory and your emotional experience. You feel the transaction, it's kind of immediate. With a digital wallet, that coupling just breaks down, more or less . You consume now and the financial reality registers later, if it registers at all.

Prelec and Simester's well known 2001 MIT experiment showed this in a pretty stark way. Participants were asked to place bids on sold out professional basketball tickets, with half told they would pay in cash and the other half by credit card. The credit card group bid, on average, nearly twice as much as the cash group (Prelec&Simester, 2001). The basic idea has only become more intense over time, especially with one tap payments , where even the act of typing or selecting a card number, a small but real moment of cognitive engagement, gets removed.

III. How Tap-and-Go Features Amplify Impulse Buying

3.1 Speed as a Behavioural Lever

One of the standout traits of contactless payments is how fast they are, like really fast. A tap-and-go moment at a point-of-sale terminal, takes roughly one to two seconds. And yeah, that speed is kinda the entire idea. But if you look at it through consumer psychology, it also becomes the annoying part. Impulse purchasing kind of feeds on a lack of deliberation. The longer someone is standing at the checkout, the more they might, stop and rethink an unplanned item. So when you remove that pause , by enabling instant tapping, the reflective side of the whole decision process just... never really gets going all the way.

There was research referenced in the *Journal of Economic Behavior& Organization*, and it basically found that contactless payment users felt less “pain” per transaction, but ended up spending more overall. The researchers explained it plainly: “it hurts less, but you spend more” (Broekhoff & van der Crujsen, 2024). The mechanism isn't mystical or anything. When checkout moves faster, there are fewer moments to hesitate, fewer chances for second thoughts, and so more impulse transactions actually get completed.

A 2024 *Forbes* survey of 2,000 consumers found that 52% reported being more likely to make impulse purchases when paying by card rather than cash (FinTech Strategy, 2024). Separate research by ZenithOptimedia found that contactless payment users had significantly less accurate recall of their spending than those who paid with cash or traditional cards, and that contactless users spent 48% more than people using other payment methods (FinTech Strategy, 2024). That memory impairment matters enormously: people cannot regulate spending they cannot remember.

As shown in Figure 1, the relationship between payment method friction and impulse buying frequency reveals a clear inverse pattern, as transaction friction decreases across payment types, the incidence of unplanned purchases increases.

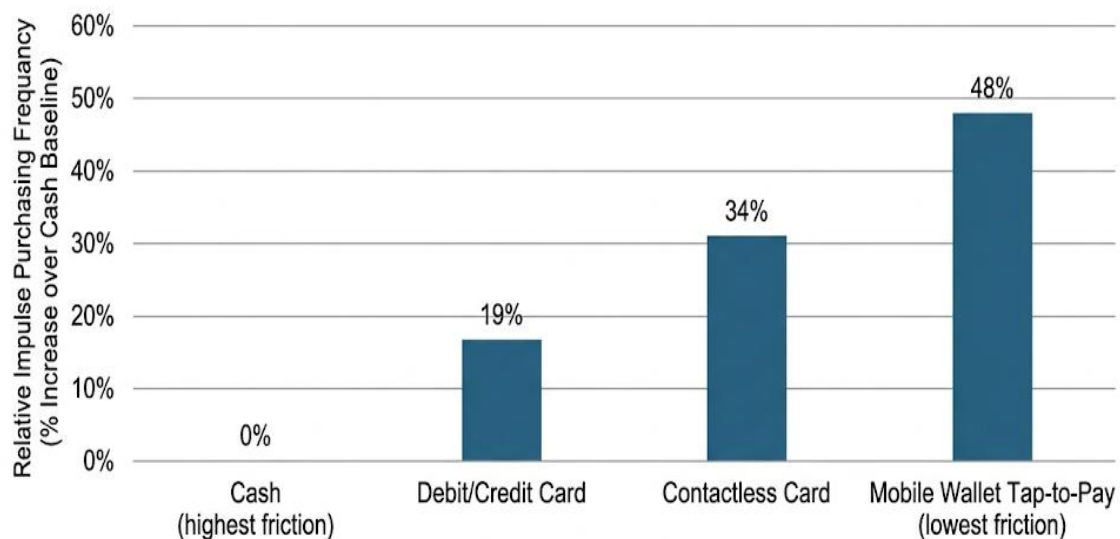


Figure 1: Payment Method Friction vs. Impulse Buying Frequency Across Transaction Types

This conceptual bar chart shows an inverse type relationship between payment method friction (basically cognitive plus physical effort needed to finish a transaction) and how often impulse buying happens across four payment types cash, debit/credit card, contactless card, and mobile wallet tap-to-pay. The horizontal axis lists payment methods from the most “sticky” to the least “sticky” friction wise, while the vertical axis tracks relative impulse purchasing frequency as a percentage lift versus a cash baseline. For mobile wallet payments the impulse buying rate seems the highest, about 48% above that cash starting point, and cash transactions sit at the bottom. Overall the pattern matches what Broekhoff & van der Crujisen (2024), FinTech Strategy (2024), and Prelec&Simester (2001) also reported. In other words the chart emphasizes that each next drop in payment friction lines up with a noticeable rise in unplanned spending.

3.2 The Invisibility of Digital Money

Paying with a phone has this quietly radical vibe about it. The money just doesn’t show up, like, ever. There is no wallet opened, no notes counted, no coins gathered as change. Instead the whole thing stays kind of abstract, a tap, a vibration, a green checkmark. For a lot of users, especially the younger crowd, that kind of abstraction makes spending feel less weighty somehow and some research hints it’s not only a feeling, it is perceived that way neurologically too.

A study that came out in *Frontiers in Human Dynamics*, in April 2025 looked at digital wallet use alongside impulsive consumer behavior among users in Indonesia. It basically confirmed that perceived ease of use and overall attitude toward digital wallets can positively predict impulsive buying tendencies (Underdown & Tamara, 2025). The authors also noted that when payments are seamless, users engage less psychologically with the actual financial cost of each buy.

Then, in another 2025 study, published in the *Advances in Consumer Research* journal and based on 650 respondents, researchers found that when payment modes are not very transparent, impulse purchasing goes up pretty noticeably. They also reported that it weakens price related pain sensitivity, and it makes spending cycles move faster, like quicker around the bend. Cash transactions created the most cognitive friction, while one-tap digital wallet payments produced the least. And that whole pattern lined up with the spending outcomes (Advances in Consumer Research, 2025). The researchers basically described the mechanism as a form of financial invisibility, where once payment becomes frictionless, the mental spotlight on money largely fades out or just sort of drifts away.

South Korea feels like a strong real-world case. In that country, more than 90% of transactions are cashless, so the near elimination of physical cash has been tied to higher consumer spending efficiency, but also to very clear increases in impulsive purchasing (Gerritmcgowan.com, 2024). The Swedish Central Bank, in a similar vein, reported that broad digital payment adoption reduced cash handling costs by 60% and lifted GDP by 2.5%, but their accompanying behavioral work also pointed to more unplanned spending at the same time as those economic improvements (Gerritmcgowan.com, 2024).

IV. The Retail Architecture of Temptation

4.1 How Merchants Design for the Tap

Retailers really aren't passive in this whole thing, like not even close. They tweak the point of sale terminals, the way product placement is arranged, and the checkout design—kind of in step with the digital payment infrastructure—so that impulse buys get more chances to happen. And once contactless payment is on the table, retailers can move queues faster, so more people get processed each hour, plus there are more small openings for spontaneous add-ons. This is one of those situations where simpler payment options measurably nudge impulse purchases forward: with no cash to count and no need to input a PIN, customers are more comfortable throwing in extra items (Metrobi, 2025).

That speed idea doesn't just show up in general retail either. It's also used pretty deliberately in food service, and convenience stores. Someone who might normally pause and think about grabbing a snack, if they were dealing with cash, often won't hesitate much when they're just tapping a phone. Quick-service restaurants that rolled out contactless payments have said they saw meaningful rises in average transaction values, especially in those add-on categories like desserts, drinks, and upgrades. It's basically the same low-consideration behavior that impulse buying thrives on.

Then there's the loyalty layer, which gets folded right into digital wallets, almost like a second incentive engine. Many retailer and platform mobile wallet apps bundle reward points, cashback perks, and tailored discounts directly into the payment flow. People rack up points for spending, which sort of shifts the psychology from "I'm losing money" to "I'm earning something". The unease that usually comes with paying gets replaced by a kind of satisfaction, like the chance to collect rewards. So instead of triggering restraint, it tends to spark involvement. Studies indicate this mobile wallet loyalty approach can contribute to overspending, because consumers spend beyond their plan while chasing rewards, yet at the same time they feel less guilty about what they spent (FinTech Strategy, 2024).

4.2 The Rise of Frictionless Online Commerce

The tap-and-go vibe really doesn't stop at physical retail stores. Digital wallets that are baked into e-commerce pages, Apple Pay, Google Pay, PayPal's "one click" checkout, they've essentially carried the same low friction logic into online shopping. Amazon's one-click buying, as reported, helped conversion jump by about 5–10%, which people say is not just because it's convenient, but because payment friction was deliberately removed. And that friction is the kind of thing that might make users hesitate midway through a purchase (NeuroscienceMarketing.com, 2025).

The McKinsey Global Payments Report 2025 basically said digital wallets are now around 30% of global point-of-sale volume, with traction especially in India, Brazil, and China (McKinsey, 2025). Mastercard also noted that, across its global network, contactless payments made up more than 75% of all transactions in 2025, which honestly would have sounded a bit far-fetched a decade ago (Mastercard, 2025). Then in the United States, tap-to-pay in retail grew 23% year-over-year in 2024, and it showed up as 38% of all in-store purchases (Cheqly, 2025).

As shown in Figure 2, the dramatic growth in contactless payment adoption globally corresponds temporally with documented increases in digital impulse purchasing rates, suggesting a structural relationship between payment infrastructure expansion and unplanned spending behaviour.

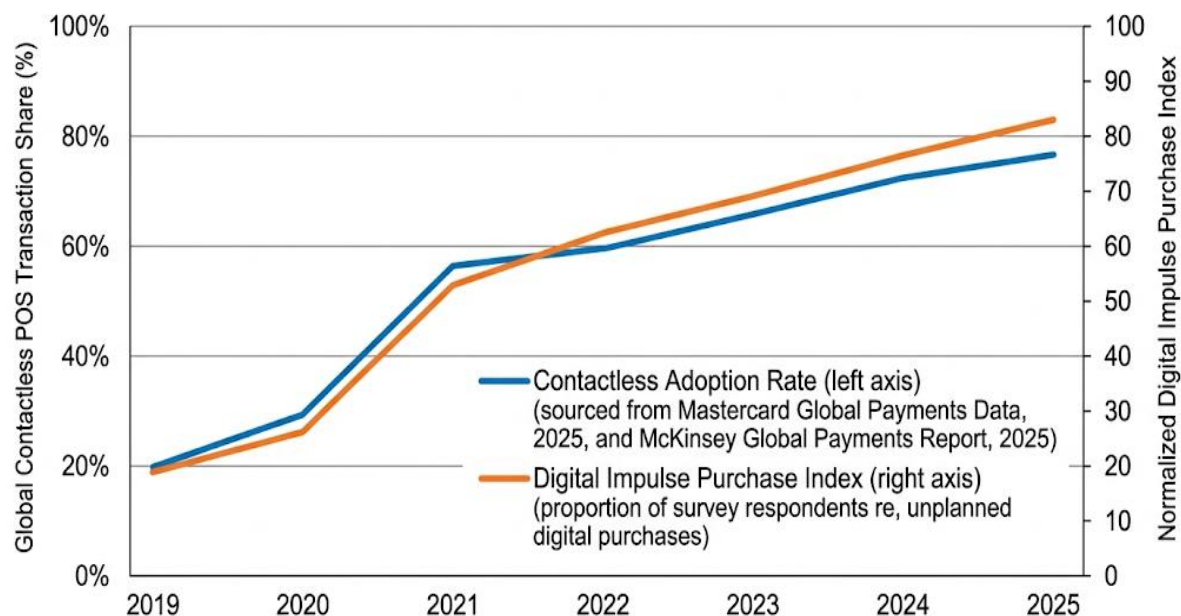


Figure 2: Global Contactless Payment Adoption Rate and Digital Impulse Purchase Index, 2019–2025

This dual axis line chart, tracks two things at once, from 2019 to 2025. The left vertical axis is the global share of point of sale payments finished with contactless methods, it climbs from about 20% in 2019 to above 75% in 2025 (from Mastercard Global Payments Data, 2025 and also McKinsey Global Payments Report, 2025). On the right vertical axis you get a normalized Digital Impulse Purchase Index, built using consumer survey responses, and it stands for the portion of people saying they made unplanned digital purchases during a particular interval. Both trend lines go up in fairly close parallel, across the six years, and you can also see a noticeable, almost sudden, speed-up in 2020–2021, which lines up with COVID 19 pushing faster contactless take-up. Growth doesn't really stop after that, it continues through 2025. Overall the graphic suggests structural co movement between contactless adoption and impulse buying, yet it doesn't claim direct cause and effect either.

V. Generational Vulnerability and Financial Literacy

5.1 Generation Z in the Crosshairs

Not every consumer is equally prone to tap-induced impulse buying, yet the younger cohort seems to carry a bigger exposure to it. Generation Z, generally people born from the mid-1990s to the early 2010s, grew up with digital financial tools as the everyday norm not as some shiny novelty. Many have little or even no experience handling physical cash, and their purchase instincts formed almost entirely inside a frictionless digital payments world.

A 2024 study that checked cashless payment habits among Gen Z said that impulse buying was really stronger for them when they used digital wallets or contactless cards instead of cash, mostly because there is no “feel” of tangible money, so the normal spending brake just kinda weakens (Singh & Shanmugam, 2024). Work by Ahn and Nam (2022) seemed to line up with that too, and it suggested that using mobile payments can push people toward overspending, especially those with weaker financial literacy, or in other words less know-how about money stuff. Also a survey that was cited in the *Advances in Consumer Research* journal reported that roughly three-quarters of Gen Z respondents pictured themselves as everyday tap to pay users, and they added they couldn't really calculate their weekly spending accurately when they relied mostly on digital wallets (Advances in Consumer Research, 2025).

The consequences can get pretty serious. You know, when impulse buying runs loose and it is tied to how easy cashless payment feels, multiple studies have linked it to compulsive purchasing, the buildup of consumer debt, and even not being able to meet repayment duties, which then seems to drag individual wellbeing downward and can also ripple through wider financial systems (Underdown & Tamara, 2025; IJRASET, 2026). And there is more, research on Buy Now, Pay Later, which is kind of a natural next step of the same friction-reduction logic, suggests BNPL late payment rates went from about 34% of users in 2023 up to more than 41% by 2025. That is a 24% jump, even though the market kept growing (IJRASET, 2026).

5.2 Financial Literacy as a Moderator

It is worth noting that financial literacy does not exactly give immunity from tap-induced overspending, but it does meaningfully moderate it. Research keep showing that consumers with stronger financial knowledge are better equipped to watch their spending more closely, catch the psychological effects behind payment method design, and use deliberate self-regulation strategies right when the purchase happens (Ahn & Nam, 2022; Goyal, 2024). This suggests that financial education is not merely about budgeting skills in the traditional sense, it also has to bring in explicit awareness of how payment technology is designed, to nudge behaviour.

VI. Conclusion

Digital wallets and tap-and-go payment features represent a genuine technological achievement. They are fast, secure, and increasingly indispensable in a world moving steadily away from physical cash. But they also carry a largely unacknowledged behavioral cost. By reducing the pain of paying, by making money invisible, transactions instant, and deliberation unnecessary, these technologies create conditions that reliably increase impulse buying. The research is clear on this point, from MIT's foundational credit card studies to recent EEG and fMRI work on mobile payments, from Gen Z consumer surveys to global transaction data.

None of this means digital wallets are inherently harmful or that people should return to cash. It does mean that consumers, retailers, policymakers, and payment technology designers all have responsibilities in this landscape. Consumers need greater awareness that the ease of tapping is not neutral, it is a psychologically engineered experience. Retailers should consider whether their payment design practices prioritize customer financial wellbeing alongside revenue. And policymakers need to develop regulatory frameworks that treat payment technology design as a behavioural influence requiring the same scrutiny we apply to advertising and financial product disclosures. The tap is fast. The spending is real. The two deserve to be understood together.

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