

How One-Click Checkout and Digital Wallets Reduce the Pain of Paying and Increase Spontaneous Buying

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Abstract

This review examines how one-click checkout and digital wallets such as UPI and Apple Pay reduce the psychological “pain of paying” and thereby encourage spontaneous buying. Grounded in the mental-accounting and decoupling literatures (Thaler, 1980; Zellermayer, 1996; Prelec & Loewenstein, 1998; Soman, 2003), the paper argues that frictionless payment systems weaken the emotional and cognitive salience of spending by shortening or removing the moment of conscious evaluation that normally accompanies a purchase. Evidence from e-commerce and digital-payment research shows that consumers spend more, buy more frequently, and engage more deeply with platforms once payment becomes faster and less visible — for example, a 28.5% rise in spending and a 43% rise in purchase frequency following the adoption of one-click buying (Unal & Park, 2023), and a reported 78.3% of Indian digital-wallet users spending more than they did with cash (Kaakandikar et al., 2024). At the same time, the review shows that the effect is not uniform: it is moderated by trust, habit, brand familiarity, user age, and payment context, and at least one controlled study finds that a simplified checkout interface alone does not reliably increase impulse buying without accompanying social or trust cues (Han, 2023). The paper concludes that payment convenience has become a behavioral force in modern retail — not merely a usability feature — and that this raises questions of consumer protection alongside its commercial benefits.

Keywords

one-click checkout, digital wallets, UPI, Apple Pay, pain of paying, mental accounting, impulse buying, consumer behavior, digital payments, frictionless commerce

I. Introduction

The growth of one-click checkout and digital wallets has changed how consumers experience online buying. These payment systems reduce the time, effort, and mental interruption involved at the point of purchase, which lowers the psychological “pain of paying” and makes spontaneous buying more likely (Prelec & Loewenstein, 1998; Unal & Park, 2023). In practical terms, the consumer no longer experiences payment as a separate, reflective financial act; it becomes a quick tap, swipe, or click. This shift matters because payment design now shapes consumer behavior as strongly as product appeal or price promotion (Unal & Park, 2023).

The background to this issue lies in the rapid transformation of digital commerce. Retailers have worked to remove friction from checkout because even small reductions in effort can improve conversion and reduce cart abandonment; industry estimates have long suggested that roughly seven in ten online shoppers abandon their carts before paying, often citing an overly complicated process. At the same time, digital wallets such as UPI and Apple Pay have become part of everyday life, especially for small and frequent purchases, making digital payment feel ordinary rather than exceptional. Industry reporting from India shows that the

Unified Payments Interface (UPI) processed 228.5 billion transactions in 2025, a 33% year-on-year increase, while the average ticket size fell from ₹1,437 to ₹1,314 — a sign that digital payment is migrating into small, routine, daily spending rather than remaining reserved for large purchases (Worldline, 2026). This means payment technology is no longer simply a transaction tool; it has become part of the consumer decision environment.

From a consumer-behavior perspective, the issue is closely tied to the psychology of the pain of paying, a concept first named by Zellermyer (1996) and formalized by Prelec and Loewenstein (1998) in their dual-entry mental-accounting model of spending and debt. When payment is visible and effortful, consumers tend to be more aware of the cost and may act more cautiously; when payment is hidden behind stored credentials, one-click buttons, or wallet-based taps, the emotional signal of spending weakens and buyers may feel less resistance at the moment of purchase (Soman, 2003). Neuroeconomic work reinforces this account: functional imaging shows that anticipated prices activate the anterior insula, a region associated with the processing of loss and disgust, and that this activation is reduced when payment is abstracted away from cash (Knutson et al., 2007). Studies of one-click checkout show that consumers not only spend more after adoption but also buy more frequently and spend more time browsing (Unal & Park, 2023). Similar patterns appear in recent studies of UPI and digital-wallet use, where ease of payment is associated with more impulsive behavior and less controlled spending (Kaakandikar et al., 2024).

Despite growing attention to digital payments, an important research gap remains. Many studies examine impulse buying, wallet adoption, or e-commerce convenience separately, but fewer bring them together to explain how payment design affects spending psychology as a whole, and fewer still qualify the effect rather than assuming it is uniform across contexts (Han, 2023). There is also limited synthesis connecting one-click checkout, digital wallets, and the pain-of-paying framework in a single integrated discussion. This gap is especially relevant in markets such as India, where UPI has become a dominant everyday payment method and digital-spending behavior continues to evolve quickly. A clearer understanding of this relationship is needed for both academic research and practical marketing and consumer-protection strategy.

The objective of this paper is to review how one-click checkout and digital wallets reduce the pain of paying and encourage spontaneous buying. The paper identifies the main themes in the literature, summarizes the methods used by prior researchers, evaluates the strength and boundary conditions of the evidence, and highlights implications for consumers, businesses, and policymakers. By bringing together theory, quasi-experimental evidence, survey research, and current market data, the paper offers a focused and up-to-date account of how frictionless payment systems influence modern buying behavior.

II. Theoretical Framework: The Psychology of the Pain of Paying

The theoretical foundation for this review rests on three connected ideas from behavioral economics and consumer psychology. The first is mental accounting (Thaler, 1980), which holds that consumers track spending in discrete cognitive “accounts” rather than evaluating every purchase against total wealth; a transaction that feels costly within its own mental account produces more hesitation than one that does not. The second is the pain of paying itself, a term introduced by Zellermyer (1996) and developed by Prelec and Loewenstein (1998) into a dual-entry model describing how the pleasure of consumption and the discomfort of payment interact. Their model highlights two mechanisms that later payment-technology research has repeatedly drawn on: prospective accounting, in which enjoyment of a good is greater when payment precedes consumption, and coupling, the degree to which a consumer is reminded of payment during or near the moment of consumption.

The third mechanism, decoupling, was extended by Soman (2003), who showed that reducing the transparency and immediacy of a payment — for instance, through stored cards or deferred billing — measurably lowers consumers' recall of what they spent and increases subsequent spending. One-click checkout and wallet-based payment can be understood as an especially strong form of decoupling: the consumer never handles cash, rarely re-enters a card number, and frequently does not see a running total before the transaction completes. Neuroeconomic evidence adds a physiological layer to this account. In an experiment combining behavioral pricing tasks with functional MRI, activation in the anterior insula — a region associated with pain and disgust — increased with rising prices, while activation in the nucleus accumbens, a reward-related structure, tracked anticipated pleasure; purchase decisions could be predicted from the balance between the two signals (Knutson et al., 2007). Payment methods that mute the insula response, as cash counterparts to card and app-based payment appear to do, would be expected to weaken the natural brake that the pain of paying otherwise places on spending.

A substantial experimental literature has tested these mechanisms directly by comparing spending across payment forms. Prelec and Simester (2001), in a classic auction study, found that participants bidding with a credit card were willing to pay roughly twice as much for identical items as participants bidding in cash, a gap the authors attributed to the credit card's ability to mute the immediate, visible cost of the purchase. Soman (2001) showed that the effect depends on the rehearsal and immediacy of the payment: the less consumers rehearse or recall the outflow of money, the more likely they are to spend. Raghurir and Srivastava (2008) extended this line of work with their “monopoly money” account, demonstrating that consumers spend more freely with payment forms — gift cards, tokens, stored credentials — that are decoupled from the physical, tangible form of cash, even when the real value at stake is identical. A large-scale meta-analysis by Schomburgk, Belli, and Hoffmann (2024), pooling 392 effect sizes from 71 studies conducted over more than four decades, confirms that this “cashless effect” is real and statistically reliable, though on average modest in size; notably, the meta-analysis also finds that the effect has weakened over time, plausibly because consumers have grown so habituated to cashless payment that it no longer feels psychologically distinct from cash. This last finding is an important qualifier for the present review: it suggests that the pain-of-paying gap between coupled and decoupled payment may not be fixed, but may itself shrink as a technology such as one-click checkout or UPI moves from novel to normal.

Taken together, these frameworks generate a specific, testable claim that this review evaluates against the empirical literature: as the visibility, effort, and immediacy of payment decline, the psychological cost registered by the consumer declines with it, and this should manifest as more frequent, larger, and more spontaneous purchasing — unless other factors, such as low trust, low brand familiarity, or growing consumer habituation to cashless payment itself, intervene.

III. Literature Review

A. One-Click Checkout and Purchase Behavior

One-click checkout is one of the clearest applied tests of the pain-of-paying framework in e-commerce. Unal and Park (2023) analyzed 35 months of transaction and clickstream data from a single online retailer spanning the launch of a one-click buying feature, using quasi-experimental methods and causal-forest machine-learning techniques to estimate treatment effects at the customer level. They found that adopting one-click buying raised customer spending by an average of 28.5%, purchase frequency by 43%, and the number of items purchased by 36%, with the effect persisting over time and varying meaningfully across customer segments. Because the analysis used observed purchase histories rather than survey self-reports, and because it exploited an actual product launch rather than a hypothetical scenario, the study is considered

unusually strong evidence that checkout simplicity itself — independent of price, promotion, or assortment — changes spending behavior (Unal & Park, 2023). Cornell University’s reporting on the study quotes co-author Murat Unal explaining that because one-click removes so much friction from the shopping experience, customers become willing to spend more time on the site and search for more items, which itself drives higher spending (Cornell SC Johnson College of Business, 2023).

B. Checkout Design, Trust, and Impulse Buying in Social Commerce

A parallel line of research asks whether simplified checkout mechanisms are sufficient on their own to raise impulse buying, or whether they only do so in combination with other trust signals. Han (2023) tested this question directly in two controlled experiments built around Instagram’s in-app “checkout button,” using trust-transfer theory as the guiding framework — the idea that trust in a well-known platform can transfer to a lesser-known seller operating within it. The notable finding is that the checkout button alone did not reliably increase impulse-buying behavior; instead, its effect depended on brand familiarity and social cues such as the number of likes a post had received, which shaped how much of the platform’s trust transferred to the product. This result nuances the simpler view that frictionless payment mechanically produces impulse buying: it suggests instead that reduced checkout friction lowers the barrier to acting on desire, but that desire itself, and the willingness to trust an unfamiliar seller, still depend on separate social and reputational signals (Han, 2023).

C. Digital Wallets and Changing Spending Habits

Digital wallets such as UPI, Google Pay, Paytm, and Apple Pay have attracted growing scholarly attention as a distinct category of frictionless payment, alongside one-click checkout. Kaakandikar, Lembhe, and Jiby (2024) conducted an empirical study of digital-wallet users in India and reported that 78.3% of respondents said they spent more using a digital wallet than they did with cash, with convenience and promotional incentives such as cashback most frequently cited as the reasons. Their broader analysis linked wallet adoption to changes in planning behavior, impulse buying, and everyday money management, and argued that these effects have psychological and socio-economic dimensions that extend well beyond simple transaction convenience. The authors framed digital wallets as reshaping not just how people pay but how people think about money — a claim consistent with the decoupling mechanism described by Soman (2003).

D. UPI and the Indian Payment Landscape

The broader Indian payments landscape provides large-scale, real-world support for these behavioral patterns. According to Worldline’s industry report for the first half of 2025, UPI transaction volumes rose 35% year-on-year to 106.36 billion transactions worth ₹143.34 trillion, while the average transaction size fell from ₹1,478 to ₹1,348, indicating that UPI’s growth is increasingly driven by small, frequent, everyday purchases rather than large, deliberated ones (Worldline, 2025). Worldline’s full-year report for 2025 shows this trend continuing: UPI processed 228.5 billion transactions across the year, a 33% increase over 2024, with the average ticket size declining further to ₹1,314 and merchant (person-to-merchant) payments rising 34% to 143.82 billion transactions — described in the report as evidence that India is moving toward a “micro-transaction economy” in which digital payment has become the default for routine commerce rather than an occasional convenience (Worldline, 2026). Meanwhile, debit-card volumes at point of sale fell as low-value transactions migrated to UPI, while credit-card spending grew in higher-value and e-commerce categories — a division suggesting UPI has become the default rail for fast, low-friction, everyday purchases specifically (Worldline, 2025, 2026). When a payment system becomes this deeply embedded in ordinary life, it plausibly shapes consumer habits in ways that persist well beyond any single transaction.

E. Trust, Habit Formation, and Reward Design

Trust and habit formation recur across this literature as necessary conditions for the pain-of-paying effect to operate at scale. Consumers are more likely to adopt and repeatedly use digital payment systems when they perceive them as secure, reliable, and easy to manage; once trust is established, repeated use creates routine behavior, which further reduces the likelihood of deliberate reflection at the point of payment (Kaakandikar et al., 2024). Incentive structures such as cashback, gamified rewards, and referral bonuses can reinforce this cycle by making digital payment feel not merely convenient but actively rewarding, layering a positive-affect signal on top of the reduced pain-of-paying signal described by Prelec and Loewenstein (1998). The Han (2023) findings complicate a purely mechanical version of this story, however, by showing that trust operates as a gate rather than a given: a low-trust context (an unfamiliar brand, a suspicious social signal) can neutralize the behavioral push of a simplified checkout, meaning that habit and reputation, not frictionlessness alone, ultimately determine whether reduced friction converts into a completed purchase.

G. Meta-Analytic Evidence and the Boundary Conditions of the Cashless Effect

Beyond individual studies, the meta-analysis by Schomburgk, Belli, and Hoffmann (2024) offers the most comprehensive test to date of whether decoupled, cashless payment reliably increases spending. Synthesizing 392 effect sizes drawn from 71 papers published across more than four decades, the authors confirm a small but statistically significant “cashless effect”: consumers spend somewhat more, on average, when paying with cashless methods than with cash. Two boundary conditions from this meta-analysis are especially relevant to the present review. First, the effect is stronger for status-signaling or conspicuous purchases than for ordinary ones, and the authors found no reliable cashless effect at all on tipping or charitable donations, indicating that the mechanism is tied specifically to self-interested consumption rather than to spending in general. Second, and more importantly for a review focused on one-click checkout and mobile wallets, the meta-analysis finds that the cashless effect has diminished over time as consumers have become more familiar with cashless payment — which the authors interpret through adaptation-level theory, the idea that a stimulus loses its psychological distinctiveness once it becomes routine (Schomburgk et al., 2024). This raises an important open question for markets such as India, where UPI has moved from a novel technology to an everyday default within a few years (Worldline, 2026): if habituation genuinely erodes the pain-of-paying gap, then the very rapid, high-volume adoption documented in the UPI literature may eventually mute the size of the effect it is currently associated with, even as the technology's importance to the payments landscape continues to grow.

India-specific survey research adds further texture to this picture. Auxilia and Gopinath (2023), studying UPI users in Chennai, found that ease and speed of UPI-based transactions were significantly associated with self-reported impulsive buying, and argued that UPI's status as a marker of digital convenience further normalizes making a purchase in the moment rather than deferring it. In a related large-scale study presented at the ACM CHI Conference on Human Factors in Computing Systems, Dev, Gupta, and Kumar (2024) examined how the shift from cash to UPI has reshaped everyday spending behavior among Indian users, situating the transition within the same pain-of-paying and mental-accounting frameworks used throughout this review and finding that reduced transactional friction was linked to more frequent, less deliberated spending, particularly for small everyday purchases. These India-focused findings are broadly consistent with the international cashless-effect literature (Schomburgk et al., 2024) while underscoring that the scale and speed of UPI's rollout make India a particularly information-rich setting for observing the pain-of-paying mechanism in real time.

H. Synthesis: The Behavioral Sequence

Read together, the literature supports a plausible sequence rather than a single uniform effect. When payment becomes technically easier, the psychological cost registered by the consumer at the moment of purchase tends to fall (Prelec & Loewenstein, 1998; Soman, 2003); when that cost falls, hesitation and the natural “pause” before completing a transaction tend to fall with it (Knutson et al., 2007); and when hesitation falls, spontaneous or unplanned buying becomes more likely, as shown most directly in the large, sustained effects Unal and Park (2023) documented after the rollout of one-click checkout. This pattern recurs across online retail, mobile wallets, and national payment infrastructure such as UPI (Worldline, 2025, 2026; Kaakandikar et al., 2024). However, the sequence is conditional rather than automatic: Han’s (2023) experimental evidence shows that checkout simplicity by itself did not reliably raise impulse buying without accompanying trust and social cues, and the broader literature notes that age, financial literacy, and purchase context all moderate how strongly the effect appears. The literature therefore supports treating one-click checkout and digital wallets not simply as payment tools, but as behavioral design choices that interact with trust, habit, and demographic context to shape consumer decision-making.

Table 1. Summary of Key Empirical Findings

Study	Payment Mechanism	Method	Key Reported Effect
Unal & Park (2023)	One-click checkout	Quasi-experimental, 35-month transaction and clickstream panel, single online retailer	+28.5% spending, +43% purchase frequency, +36% items purchased after adoption; effects persistent and heterogeneous across customers
Han (2023)	In-app “Checkout button” (social commerce)	Two online experiments (U.S. Instagram users), trust-transfer framework	Checkout button alone did not directly raise impulse buying; effect was conditional on brand familiarity and social cues (e.g., likes)
Kaakandikar et al. (2024)	Digital wallets (UPI, Google Pay, Paytm, etc.)	Survey-based empirical study, Indian users	78.3% of wallet users reported spending more than with cash; convenience and cashback cited as primary motivators
Worldline (2025, 2026)	UPI (national payments rail, India)	Industry transaction-volume reporting	228.5 billion UPI transactions in 2025 (+33% YoY); average ticket size fell to ₹1,314, showing migration toward small, frequent, low-friction purchases
Schomburgk, Belli & Hoffmann (2024)	Cashless payment methods (pooled, 71 studies)	Meta-analysis, 392 effect sizes across 40+ years of research	Small but statistically significant “cashless effect” on spending; effect strongest for status-signaling purchases and has weakened over time as consumers habituate to cashless payment
Dev, Gupta & Kumar (2024)	UPI (India)	Large-scale user study, ACM CHI ’24	Reduced transactional friction linked to more frequent, less deliberated everyday spending

Study	Payment Mechanism	Method	Key Reported Effect
			among Indian UPI users

Source: Author

IV. Methodology

This paper follows a narrative review approach. The purpose is to synthesize existing evidence on one-click checkout, digital wallets, the pain of paying, and spontaneous buying into a single, structured, and readable account. A narrative review is appropriate because the topic spans behavioral economics, consumer psychology, digital finance, and e-commerce practice, and because these fields often use different research designs — laboratory experiments, quasi-experimental field data, large-scale industry reporting, and cross-sectional surveys — that are not well suited to a single quantitative meta-analysis. The goal is to connect these findings into one coherent interpretation rather than to estimate a single pooled statistical effect.

The review draws on peer-reviewed studies, institutional industry reports, and recent research relevant to digital payments and consumer spending behavior. Priority was given to sources offering the clearest causal or quasi-causal evidence — particularly the quasi-experimental analysis of one-click checkout by Unal and Park (2023) and the controlled experiments on checkout design by Han (2023) — alongside survey-based research on digital-wallet adoption (Kaakandikar et al., 2024) and industry transaction data on UPI (Worldline, 2025, 2026). The literature was organized thematically around payment friction and mental accounting, the pain of paying, impulse buying, trust and brand familiarity, and habit formation, and findings were compared across studies to identify convergent patterns as well as boundary conditions and disagreements.

The main sources included the Cornell-affiliated study of one-click checkout published in *Management Science* (Unal & Park, 2023), the *Journal of Retailing and Consumer Services* study of the Instagram checkout button (Han, 2023), the *Economic Sciences* study of digital-wallet behavior in India (Kaakandikar et al., 2024), and Worldline's 1H 2025 and full-year 2025 India Digital Payments Reports. Foundational theoretical material on mental accounting and the pain of paying (Thaler, 1980; Zellermyer, 1996; Prelec & Loewenstein, 1998; Soman, 2003) and neuroeconomic evidence on the pain of paying (Knutson et al., 2007) were used to interpret why these behavioral patterns occur, not simply to describe that they occur. Together, these sources provide a balanced picture of both underlying psychological mechanism and observed market-level outcome.

V. Findings

The findings across the literature are broadly consistent, though not uniform. One-click checkout reduces the effort required to buy, and this reduction in effort is associated with higher spending, higher purchase frequency, and greater browsing engagement. In the Unal and Park (2023) study, customers who adopted one-click shopping increased spending by 28.5%, purchase frequency by 43%, and items purchased by 36%, while also spending more time on the site and viewing more pages — evidence that easier payment does not simply speed up an existing shopping journey but changes its shape and length.

Digital wallets show a related pattern at a very different scale. Kaakandikar et al. (2024) report that 78.3% of Indian digital-wallet users say they spend more than they did using cash, and Worldline's industry data show that UPI's average transaction size has fallen steadily — from ₹1,437 in 2024 to ₹1,314 in 2025 — even as total transaction volume has grown by roughly a third year over year (Worldline, 2026). Read together, these figures suggest that digital wallets are becoming the default channel for small, frequent, low-deliberation

purchases specifically, which is exactly the category of spending the pain-of-paying framework predicts should be most sensitive to reduced friction.

At the same time, the Han (2023) experiments show that the relationship between checkout simplicity and impulse buying is not automatic. In their tests, the presence of a simplified checkout button did not, by itself, reliably increase impulse-buying intention; the effect depended on brand familiarity and social validation cues. This finding is important because it indicates that frictionless payment lowers the barrier to acting on a purchase decision that has already been substantially formed by trust and social proof, rather than independently generating the desire to buy.

Overall, the results support three linked conclusions: (1) reduced payment friction is associated with large, measurable increases in spending and purchase frequency where it has been directly tested (Unal & Park, 2023); (2) this pattern extends to national-scale digital-wallet infrastructure, where falling average transaction sizes alongside rising volumes point to the same underlying dynamic (Worldline, 2025, 2026; Kaakandikar et al., 2024); and (3) the strength of the effect is conditional on trust, brand familiarity, and social context, meaning frictionless payment is best understood as amplifying existing purchase intent rather than creating it from nothing (Han, 2023).

VI. Discussion

The broader implication of this review is that payment design has become part of consumer persuasion, whether or not it is designed with that intent. One-click checkout and digital wallets do not merely make shopping more convenient; they change the mental experience of spending. In traditional payment settings, the act of paying creates a moment of awareness — the coupling described by Prelec and Loewenstein (1998). In digital settings, that moment is shortened, softened, or removed altogether through decoupling (Soman, 2003). This shift is powerful precisely because it can influence behavior without requiring any overt persuasive message; the persuasion is embedded in the interface itself.

From a marketing perspective, frictionless payment is effective because it lowers cart abandonment and increases conversion, exactly as Unal and Park (2023) documented. From a consumer-welfare perspective, however, the same design may make it harder for a buyer to notice overspending until later, since the cognitive markers that would normally prompt a pause — visible cash leaving one's hand, a running total, a moment of friction — are engineered out of the experience. This tension matters for platforms, retailers, and policymakers alike. The evidence suggests that payment ease should be treated as a behavioral design choice with welfare implications, not merely a usability feature to be optimized for conversion. Businesses may gain short-term sales, but they also shape the financial habits of their users in ways that are not always visible to the user in the moment.

For emerging markets such as India, the rise of UPI makes this discussion especially urgent. UPI has made instant, low-cost payment a normal part of daily life, with clear benefits for financial inclusion, transaction speed, and merchant adoption — the network now spans hundreds of millions of QR-enabled merchants and handles hundreds of billions of transactions annually (Worldline, 2026). At the same time, survey evidence indicates that easy payment can reduce psychological restraint and encourage more impulsive spending, particularly among younger and less experienced users (Kaakandikar et al., 2024). The policy challenge is therefore to preserve the genuine inclusion and efficiency benefits of frictionless payment while also supporting responsible spending — for example, through optional spending-visibility features, cooling-off periods for large or first-time purchases, or clearer post-transaction summaries that restore some of the awareness that decoupling removes.

The Han (2023) findings add an important qualifying note to this discussion: because checkout simplicity alone did not reliably increase impulse buying in a controlled setting, interventions aimed purely at reintroducing payment friction may be a blunt tool. If trust and social validation are doing much of the causal work in whether a simplified checkout converts into a purchase, then consumer-protection efforts might be more effective if they target the trust and reputational signals surrounding a purchase — for example, requiring clearer seller verification in social commerce — rather than only the checkout mechanism itself.

Another point worth noting is that the effect plausibly differs by user group, though direct age-stratified evidence remains limited in this literature. Younger consumers appear, on the available survey and market evidence, to be both more comfortable with digital wallets and more exposed to their behavioral influence, while older or less digitally native consumers may show stronger caution or continue to rely on more familiar payment methods. This suggests future research should avoid treating all consumers as a single homogeneous category; payment behavior likely depends on an interaction of age, habit, trust, financial literacy, and purchase category.

VII. Limitations and Directions for Future Research

This review has several limitations that should temper its conclusions. First, as a narrative rather than a systematic or meta-analytic review, it does not apply a formal, replicable search protocol or quantitatively pool effect sizes across studies, so the strength of the overall pattern is best read as suggestive rather than as a precisely estimated causal effect. Second, the strongest causal evidence — the Unal and Park (2023) study — comes from a single retailer in a specific industry, and the authors themselves note that replication across other firms, sectors, and platforms is needed before the magnitude of the effect can be generalized. Third, much of the digital-wallet evidence reviewed here, including Kaakandikar et al. (2024), relies on self-reported survey data, which is useful for capturing perceived changes in spending but is more susceptible to recall bias and social-desirability effects than transaction-level data. Fourth, the industry reporting on UPI (Worldline, 2025, 2026) documents aggregate transaction patterns consistent with the pain-of-paying account but does not, by itself, establish that reduced friction rather than other factors — such as expanding merchant acceptance, demonetization-era policy shifts, or smartphone penetration — is the primary driver of those patterns. Fifth, the meta-analytic evidence of a diminishing cashless effect over time (Schomburgk et al., 2024) raises a genuine question about how durable the effects reviewed here will prove to be: if consumers habituate to one-click checkout and UPI in the same way earlier research suggests they habituated to credit cards, the size of the behavioral effect documented today may not hold at the same magnitude a decade from now, even if frictionless payment remains dominant.

Future research could usefully address these gaps in several ways: replicating the Unal and Park (2023) design across multiple retailers and product categories; conducting age- and income-stratified field experiments on UPI and wallet-based payment specifically, rather than relying on cross-sectional survey recall; extending Han's (2023) trust-transfer design to UPI-based social and quick-commerce checkout, which has grown rapidly in India since that study was conducted; and testing whether lightweight friction-reintroduction features — such as optional spend summaries or short confirmation delays on large transactions — measurably reduce regretted or unplanned purchases without meaningfully harming conversion or financial inclusion.

VIII. Conclusion

This review shows that one-click checkout and digital wallets reduce the pain of paying by making the act of spending faster, easier, and less emotionally visible, consistent with the mental-accounting and decoupling frameworks that underpin this literature (Thaler, 1980; Prelec & Loewenstein, 1998; Soman, 2003). As a result, consumers are more likely to buy spontaneously, especially in online and mobile settings where checkout friction is low, and the scale of this shift is visible not only in controlled studies (Unal & Park, 2023) but in national payment data showing hundreds of billions of small, frictionless UPI transactions each year (Worldline, 2026). The evidence also shows, however, that the effect is not automatic: trust, brand familiarity, habit, rewards, and consumer age all shape how strongly it appears, and at least one controlled study finds that checkout simplicity alone is not sufficient without accompanying trust cues (Han, 2023).

The key conclusion is that payment design now functions as a behavioral force in modern retail, not merely a technical or usability feature. When payment becomes nearly invisible, spending tends to feel lighter, and lighter spending, compounded over millions of small transactions, can add up to substantially more spending overall. Frictionless payment systems therefore deserve to be studied — and regulated — not only as technological conveniences but as design choices with real behavioral and welfare consequences. For marketers and platforms, they offer a genuine and repeatedly documented improvement in conversion and engagement; for consumers, they can quietly erode the moments of reflection that ordinarily support financial self-control. A balanced approach, informed by the boundary conditions this review has identified, is needed so that continued innovation in digital payment supports both convenience and responsible spending.

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