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The true cost of cash on delivery

What failed COD orders cost Indian D2C brands, and how to measure it.

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Public evidence review · no earnings claims

Executive summary

What the data says. Cash on delivery carries roughly half of Indian D2C order volume, and 52% of orders in the tier-3 cities that drive most of the growth ^[5]. Across Shipway's FY25 shipment data, about 26% of non-prepaid orders came back undelivered, against under 2% of prepaid ^{[1][2]}. One COD order in four fails, at ten to twenty times the prepaid rate.

What one failure costs. Priced across seven components – freight both ways, packaging, COD fees, the expected write-off after resale recovery, the carrying cost of stock stuck in transit, and the ad spend already paid – one failed order runs ₹150 to ₹300 on illustrative inputs for a light parcel. Base.com's published range of ₹180 to ₹350 per returned COD order brackets the same ground ^[8]. The freight lines of the courier invoice typically show two or three of the seven components; the rest is real but invisible without deliberate accounting.

What it means at scale. At 1,000 COD orders a month and a 25% RTO rate, the full allocated cost is about ₹50,000 a month, ₹6 lakh a year, of which perhaps ₹20,000 appears on invoice freight lines. Each point of RTO at these volumes carries about ₹24,000 a year of allocated cost; how much of it a fix recovers depends on the intervention and on which costs are already sunk. For many brands this number is the difference between a thin profit and none.

What to do with it. Section 6 lays out a measurement method any brand can run in a spreadsheet: four weeks of setup, then a 30-day post-intervention read: split cancellations, RTO and post-delivery returns, cost every failed order with the brand's own inputs, fix the largest failure group, measure against baseline.

Every figure above comes from platform-published reports or press coverage of them, and most of those platforms sell RTO-reduction products; read the numbers as well-sourced orders of magnitude. The cost stack is an illustrative model built from stated inputs, and any brand's own numbers will differ. This paper claims no client results.

1. COD's place in Indian ecommerce

COD persists for trust reasons more than payments reasons. UPI made digital payment nearly frictionless, yet COD still accounts for roughly 45 to 55% of D2C orders in the datasets we reviewed ^{[3][4]}. ClickPost's festive 2025 analysis of over 4.25 crore shipments found COD at 52% of tier-3 orders ^[5]. The geography matters: tier 2 and 3 cities produced about three-quarters of festive order volume ^{[5][14]}, so the places growing fastest are the places where COD dominates.

The direction, though, is changing. ClickPost's longitudinal analysis of 635 million orders found prepaid reached 41% of orders in 2025, up from 32% a year earlier, with tier 2 cities growing prepaid fastest ^[4]. GoKwik reported prepaid surpassing COD across its network for the first time during the 2025 Republic Day sale period, with UPI at about 46% of order volume ^[6].

The sensible planning assumption is a long taper: prepaid will keep winning the top of the market, and COD will remain the default where new customers and new geographies come from. Brands therefore need two capabilities at once: converting ready customers to prepaid, and running the remaining COD book without losing money on it.

2. Defining the problem precisely

Three events get blended into “returns” in most dashboards, and the blending corrupts every downstream decision.

- **Cancellation:** the order dies before dispatch. Nearly free.
- **Customer return:** the order delivered, then came back. A product and expectation problem.
- **RTO (return to origin):** the order shipped but never delivered. No sale, no payment, freight spent both ways.

The payment-mode split lives almost entirely in the third bucket. The Shorages dataset of roughly 30,000 UAE orders is the cleanest public illustration: COD orders completed 78.6% of the time with 19.6% RTO; prepaid completed 93.9% with 2.9% RTO, while post-delivery returns were similar across both modes (about 2 to 3%) ^[7]. Shipway’s FY25 India data shows the same shape at far larger scale.

Throughout this paper, “the problem” means RTO on COD orders. Brands that do not separate the three buckets should do that first; the method in section 6 begins there.

3. The cost stack

A failed COD order costs seven things; the courier invoice rarely shows them all.

1. **Forward freight.** Spent regardless of outcome. Aggregator benchmarks put a light parcel at roughly ₹36 to ₹45 per leg, more by weight and zone ^[10].
2. **Return freight.** Usually charged at or near the forward rate; some rate cards add an RTO handling fee. Freight alone for one failure is often ₹70 to ₹90 ^[10].
3. **Packaging.** Box, filler, tape, label. Largely unrecoverable.
4. **COD and handling fees.** Whether they apply to returned orders depends on the rate card; check yours.
5. **Damage and write-offs.** Units that spend two to three weeks in the failure loop come back crushed, opened or expired at some rate; food and beauty suffer most. The honest input is the expected write-off after reselling whatever still can be sold.
6. **Carrying cost of blocked stock.** A failed unit spends one to three weeks in transit instead of on the shelf. The cost is financing, storage and lost selling time for the blocked period, never the full value of the stock, which

mostly sells once it is back.

7. **Acquisition allocation.** The ad spend behind an order that produced no revenue. It is a real cost of the failure, with one limit: the budget is already spent, so lower RTO does not hand it back as cash; it makes the same budget produce more delivered orders.

An illustrative all-in estimate is ₹150 to ₹300 per failed order for a typical light parcel; ₹200 is a workable planning figure until a brand computes its own. Base.com's India guide independently puts the all-in loss at ₹180 to ₹350 per returned COD order, which brackets the same range ^[8].

Worked example. 1,000 COD orders a month at a 25% RTO rate is 250 failures. At ₹200 each, ₹50,000 a month, ₹6 lakh a year. The freight lines of the courier invoice will show perhaps two-fifths of that, plus any COD surcharges the plan bills per shipment. The rest is real but invisible without deliberate accounting.

Two adjacent costs complete the picture. **Working capital:** COD remittances lag delivery by days to weeks, so a slice of revenue sits in couriers' hands as an unsecured float with a financing cost. **Reconciliation leakage:** batch remittances arrive net of deductions, and weight re-weigh charges are auto-accepted unless disputed; order-level matching is where recoverable money typically surfaces ^[17].

4. What the public data shows

Scale and concentration. Shipway ShipNotes FY25 (millions of D2C shipments on one platform, as covered by Mediabrief and BW Disrupt): about 26% of non-prepaid orders returned, under 2% of prepaid ^{[1][2]}. GoKwik puts the industry average at roughly 20 to 25%, approaching 40% for adverse category and geography mixes ^[3].

Geography. City-level RTO in Shipway's data runs from 18% (Vadodara) to 35% (Patna) ^{[1][2]}. GoKwik has reported state extremes around 34% (Bihar) and individual pincodes near 72% ^[3]. Averages conceal; geography mixes decide.

Time. Shipway: 22% RTO when first attempted within 1 to 2 days, 27% at 3 to 5 days, 35% beyond 5 days ^{[1][2]}. Distance compounds: intra-city returns least, special zones most. These splits are observational: slow lanes and special zones differ from fast metro lanes in more ways than transit days, so treat the gradient as a sign of where to dig; it does not prove that speed alone closes it.

Order value. The ₹500 to ₹1,000 band returned most (28%), consistent with impulse purchase and post-purchase regret decaying over transit days ^{[1][2]}. GoKwik attributes 60 to 70% of RTOs to low buying intent rather than logistics failure ^[3].

Category. Base.com's 2026 benchmarks put fashion at 25 to 40% RTO, electronics at 8 to 18% and beauty at 5 to 15% ^[9]; the vendor publishes no methodology or sample for these ranges, so we treat the category ordering as orientation rather than measured fact. Sizing uncertainty, impulse buying and bracketing are the named drivers of fashion's premium.

Fraud. GoKwik reported that over a two-week window in early 2024 it observed 2 to 10% of orders being fraudulent on affected merchants (up to 15 to 20% for some), a spike figure rather than a steady state ^[12]. It claims OTP verification lifts fake-order detection from about 80% to 95%; that is the vendor's own account of its product ^[12].

Cross-market evidence. The UAE shows the same structure (19.6% COD RTO vs 2.9% prepaid across roughly 30,000 orders analysed by Shorages) ^[7], which suggests the cause sits in the payment mode's incentives rather than in Indian logistics quality. That dataset serves as a comparison across markets; the Indian picture above rests on the Shipway, GoKwik and ClickPost figures.

Evidence caution. Nearly all of these numbers originate from platforms that sell RTO-reduction products (Shipway sells shipping software; GoKwik sells checkout and RTO tools). We worked from press coverage; no platform shared raw data with us. The figures are best treated as well-sourced orders of magnitude, and the directionally consistent picture across independent platforms is more trustworthy than any single figure.

5. The interventions, by evidence strength

Strongest logic and consistent vendor evidence:

- **Pre-dispatch confirmation** (WhatsApp, IVR, OTP) removes no-intent and fake orders before freight is spent, the cheapest point of intervention. Vendor case studies claim RTO cuts of 20 to 30%+; unaudited, but the mechanism is sound and the cost trivial ^{[13][19][20]}.
- **Same-day NDR contact** rescues orders inside the roughly three-attempt window; courier platforms now build this in (Delhivery SmartNDR, aggregator NDR automation) because it demonstrably recovers deliveries ^{[16][18]}.
- **Address quality work** (landmark fields, validation, scoring before dispatch) targets the causes vendors consistently place among the largest drivers of RTO: address errors, impulse buys and fakes ^{[3][15]}.

Good economics when measured honestly:

- **COD fees** (typically ₹39, charged by about a third of brands): research reports COD share down about 13 points, conversion down about 5%, RTO down about 6 points ^[11]. A volume-for-quality trade worth testing, with regulatory weather to watch.
- **Prepaid conversion incentives:** small discounts or free shipping on prepaid. Prepaid's under-2% return rate is an observed payment-mode difference, not proof that an incentive causes it; judge any incentive test on incremental margin and conversion against a control cohort, not on the gap alone.
- **Delivery speed:** fixing the slowest lanes attacks the 22%-to-35% time gradient directly, at real freight cost ^{[1][2]}.

Useful but easy to overuse:

- **Pincode-level COD restriction:** the arithmetic is compelling at 35%+ RTO ^{[1][2]}, but it taxes the genuine majority inside bad pincodes and cuts into the tier-3 demand driving growth. Tiered policies beat binary ones.
- **Risk scoring at checkout:** effective against fraud and repeat refusers; depends on network data a single brand cannot see itself.

The uncomfortable finding across all of them: the published evidence rarely says whether a chosen intervention worked, cohort against cohort, after the fact. Vendor material reports tooling activity; measured outcomes are scarce.

6. A measurement method

The review we recommend, and run, fits in a spreadsheet. Setup takes about a month; the measurement read takes a month more.

Week 1, export. 90 days of orders with payment mode, value, pincode, courier, dates and final status; the charge detail from the aggregator; the bank's remittance credits. Split cancellations, RTO and post-delivery returns before anything else.

Week 2, cost. Tag every failed COD order and cost the full stack per order, marking estimates as estimates. Group the total by pincode cluster, courier, product, value band and NDR reason. Reconcile remittances for the same window. Output: one defensible total and a ranked list of failure groups.

Week 3, one fix. Take the largest group, pick the matching intervention, and write down the prediction before switching it on.

Week 4 and after, measure. The four weeks above are setup; the read itself is a full 30-day post-intervention window against the baseline, cohort against cohort where possible, side effects watched. Keep, adjust, or revert and take the next item.

The loop is the product. Each quarterly pass is faster, and the brand accumulates something its competitors mostly lack: its own numbers.

7. Limits of this review

We read no primary transaction data; every figure cited comes from platform-published reports or press coverage of them, and most platforms sell products adjacent to the problem. Worked examples use stated assumptions, not a specific brand's economics. Nothing here is a promise of results; it is a map of where the money leaks and a way to count it.

Sources

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About Humalyze: Humalyze is a Chennai-based firm that works with businesses on data, technology and human capital. Our first research focus is the cost of failed orders for D2C brands, reviewed on the brand's own data. This paper is a review of public evidence; it makes no earnings claims and cites its sources throughout.