CONTENTS

FOR DTC FOUNDERS AND OPERATORS · A FIELD GUIDE

THE CATALOG

Stockouts, discontinuations, reformulations and cuts to the range, **treated as what they are: retention events.**

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September 2026 · 14 chapters · About 65 minutes

A note before you start

Most brands treat the catalog as an operations question and retention as a marketing question. The customer doesn't see the line between them. When the thing they reorder every six weeks says "sold out," or comes back tasting

different, or quietly disappears, that is the retention program talking, whatever the email calendar says.

22%	25%
lower buying over the next 13 months from catalog customers whose every ordered item was out of stock, compared with customers who had no stockouts (Anderson, Fitzsimons and Simester, 2006)	longer gaps between orders after an online grocer cut its range, at the same grocer where category sales had risen 11% (Borle and colleagues, 2005; Boatwright and Nunes, 2001)

Those two numbers frame the guide. The first says a stockout isn't one lost sale. It follows the customer into the next year. The second says the same cut to a range can look like a win when you count category sales and a loss when you count customers. Both findings come from careful studies with control groups, and both point at the same blind spot: the people who buy from you again and again are the ones most exposed to every change in what you sell.

So this is a guide to handling those changes on purpose: ranking stockout risk by who buys each product, finding the customers who depend on a product before you change or retire it, telling them what and when, and cutting a long tail by each product's role in repeat orders, not its margin alone.

> **Every change to what a repeat customer can buy is a retention event. Most of them are scheduled by someone who never looks at retention.**

It builds on The Second Order, which covers replenishment timing and the second purchase, and on The Whole Machine for contribution margin and the core flows. Discount training and the sale calendar live in The First Offer.

How to read it

Start with The Catalog Audit, or with the map just below. Or follow a path:

- **Founder:** Every Change on One Page, What a Stockout Costs, Find the Dependents, Fewer Products, For and Against.

- **Operations or inventory lead:** Who a Stockout Hits, Information for Inventory, The Markdown Trap, Prune by Basket Role.
- **Retention or lifecycle lead:** Back in Stock, or Something Close, The Discontinuation Playbook, Reformulation, and New Coke.
- **Analyst:** chapters 3, 7 and 12, then For Your Analyst.

Three tools run in the page. Nothing you type leaves your browser.

What's proven and what isn't

- **Filed:** company filings with the SEC, with the filing and date.
- **Published:** peer-reviewed research, books and papers by the researchers themselves, official law and regulator guidance, with the date it was true.
- **Reported:** what a named company or outlet published, including a company's account of its own history.
- **Derived:** my arithmetic, with the inputs shown.

Examples that open with Say or Picture use made-up round numbers. Every source is listed in Appendix C.

Andrew Lauchner

Scottsdale, Arizona

FRONT

TEN POSITIONS

What this guide argues, and what would prove each claim wrong.

A position says what would prove it wrong. Test each on your own store.

01 **A stockout costs future orders, not only today's.**

Wrong if customers who hit a stockout reorder at the same rate over the next six months as similar customers who didn't.

What a Stockout Costs

02 **Rank stockout risk by who buys the product, not by how many units it sells.**

Wrong if your top ten products by units are the same ten as your top ten by repeat customers.

Who a Stockout Hits

03 **When something is out, give the customer a reason to wait or a good alternative. Don't pay them to wait.**

Wrong if customers you gave a discount to wait go on to buy more over the next year than customers you gave an honest explanation.

Back in Stock, or Something Close

04 **The cheapest safety stock is information from customers who already told you what they'll need.**

Wrong if your subscription and replenishment data predict next month's demand for your top products no better than last month's sales do.

Information for Inventory

05 **Clearing overstock with sitewide discounts moves the problem from the warehouse to your customers' expectations.**

Wrong if customers acquired or reactivated during clearance sales buy at full price as often as everyone else.

The Markdown Trap

06 **Before any product changes, name the customers who depend on it.**

Wrong if your last discontinued product's heaviest buyers reordered something else at the usual rate.

Find the Dependents

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07 **A discontinued product needs notice, a last chance to stock up, and a replacement you've tested on the people who'll lose it.**

Wrong if the dependents of a product retired with that playbook churn at the same rate as the dependents of one retired without it.

The Discontinuation Playbook

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08 **A reformulation is a discontinuation with the same name on the label. Handle it like one.**

Wrong if repeat buyers of a changed formula reorder at the same rate as before the change.

Reformulation, and New Coke

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09 **Cutting duplicates can raise sales; cutting what someone relies on loses the customer, not just the sale.**

Wrong if customers who lost their usual product in a cut order as often afterwards as customers who didn't.

Fewer Products, For and Against

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10 **Prune by a product's role in repeat baskets, not by its margin alone.**

Wrong if the low-margin products you cut last year took no other orders with them.

Prune by Basket Role

EVERY CHANGE ON ONE PAGE

Five ways the catalog changes under a repeat customer. Each has a customer it hurts most, a number that tells you how it's going, and a first move.

Find the change you're facing this quarter. You may be facing three of them at once and managing one.

THE CHANGE	WHO IT HURTS MOST	THE NUMBER TO WATCH	FIRST MOVE
A stockout, days to weeks	Customers due to reorder it this month	Repeat-weighted days out of stock	Stock the products repeat customers buy first; capture intent when out
Overstock	Full-price customers who see the discount	Share of revenue sold on markdown	Clear it privately, to people who already buy it
A discontinuation	Customers for whom it's most of what they buy	Dependents still ordering 90 days later	Notice, a last stock-up, a tested replacement
A reformulation	Loyal buyers of the old version	Reorder rate of existing buyers after the switch	Tell them first, and let them try it before it ships
A pruned long tail	Customers whose basket is anchored by a small product	Repeat-basket role of each cut product	Cut duplicates; protect anchors

The changes share one mechanism. A repeat customer has a routine: a product they know, a quantity, a rhythm. Anything that breaks it forces a fresh decision, and a fresh decision is a chance to leave. A stockout breaks it for weeks, a discontinuation or reformulation for good, and pruning for a few customers at a time, which is why it's easy to miss in the totals.

> **A routine doesn't need a reason to continue.**
> **A broken routine needs a reason to restart.**

Do this

- **List every catalog change planned for the next 90 days**: stockouts you can already see coming, products to retire, formula or supplier changes, and cuts. Put a name next to each. If nobody on the retention side knows about half of them, that's your first finding.

START HERE · CHAPTER 1

THE CATALOG AUDIT

Twelve checks on whether changes to what you sell are being handled as retention events. About forty minutes with your inventory report, your email platform and your order data.

The audit isn't about how good your forecasting is. It's about whether the people who buy from you repeatedly are protected when the catalog moves

under them: when something sells out, goes away, changes, or gets cut.

Open your inventory or stock report, your email and SMS platform, your product page for something that's sold out, and whatever record you have of the last product you retired. Score each check 0 to 2: 0 if it failed or nobody can answer it, 1 if partly true, 2 if clean. "We'd know if it were a problem" doesn't count as an answer.

> **If nobody measured what the last discontinuation did to its buyers, the answer isn't "nothing." It's "unknown."**

The twelve checks

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01 **Someone sees stock for repeat products daily · 3 min**

Look at: Who gets told, and how fast, when a top reorder product drops below a few weeks of cover.
Good: A named person gets an alert with weeks of cover for your top reorder products, and the retention lead gets the same alert.
Cost if wrong: The first person to notice a stockout is a customer.
Read next: Who a Stockout Hits

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02 **Stockout risk is ranked by repeat customers · 4 min**

Look at: How your team decides which products to reorder first, expedite or protect.
Good: The ranking uses each product's share of repeat customers, not units or revenue alone.
Cost if wrong: You protect the product new customers try and let the one loyal customers reorder run out.
Read next: Who a Stockout Hits

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03 **You know what your last stockout cost · 4 min**

Look at: Your biggest stockout of the past year.
Good: Someone compared the reorder rate of customers who hit it with similar customers who didn't, over the following months.
Cost if wrong: You count the lost week of sales and miss the lost customers, so you underinvest in stock.
Read next: What a Stockout Costs

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04 **Every sold-out product captures intent · 3 min**

Look at: A sold-out product page, on a phone.
Good: A back-in-stock signup by email or text, an honest expected date if you have one, and a flow that fires on restock.
Cost if wrong: A shopper who wanted to buy leaves with nothing to bring them back.
Read next: Back in Stock, or Something Close

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05 **Sold out offers something close · 3 min**

Look at: The same page, and what happens to a subscription order when its product is out.
Good: The page names one or two real alternatives, and subscribers are asked before anything is swapped.
Cost if wrong: The customer finds the alternative at a competitor, or gets a swap they didn't agree to.
Read next: Back in Stock, or Something Close

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06 **Late orders get an honest notice, not a discount · 3 min**

Look at: What a customer hears when a paid order can't ship on time.
Good: A notice with a revised date and a one-click cancel and refund, sent before the promised date passes.
Cost if wrong: You break the FTC's mail order rule, and a discount to wait may cost you future orders too.
Read next: Back in Stock, or Something Close

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07 **Customer demand signals feed the buy plan · 4 min**

Look at: What goes into the next purchase order for your top products.
Good: Scheduled subscription orders, predicted reorders and waitlist counts are inputs, not just last month's sales.
Cost if wrong: You hold more safety stock than you need and still run out of what's already been promised.
Read next: Information for Inventory

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08 **Overstock is cleared without teaching everyone to wait · 3 min**

Look at: How the last excess inventory was cleared.
Good: Targeted offers, bundles or private sales to people who already buy the product, not a sitewide markdown.
Cost if wrong: Full-price customers learn the price is optional.
Read next: The Markdown Trap

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09 **You can list a product's dependents in an hour · 3 min**

Look at: Whether anyone can pull, today, the customers who have bought a given product repeatedly or for whom it's most of their spend.
Good: A saved query or segment does it for any product.
Cost if wrong: Every change reaches your most exposed customers by surprise.
Read next: Find the Dependents

10 **Retirements follow a written playbook · 4 min**

Look at: The last product you discontinued.
Good: Its dependents got notice, a last chance to stock up and a named replacement, and someone measured how many were still ordering 90 days later.
Cost if wrong: The product's heaviest buyers find out from a sold-out page.
Read next: The Discontinuation Playbook

11 **Reformulations are announced before they ship · 3 min**

Look at: Your last formula, supplier, scent, fit or packaging change on a reorder product.
Good: Existing buyers heard about it before it arrived, with a way to try it, and the reorder rate was watched.
Cost if wrong: The customer discovers the change in the product, which reads as a broken promise.
Read next: Reformulation, and New Coke

12 **Cuts are scored on basket role, not margin alone · 4 min**

Look at: The spreadsheet from the last range review.
Good: Each product under review shows its repeat buyers, what else is in its orders, and how many customers depend on it.
Cost if wrong: You cut a low-margin anchor and lose the orders it brought with it.
Read next: Prune by Basket Role

Score as you go; your band appears when all twelve are in.

RUN YOUR NUMBERS

Score the twelve checks

0: failed, or nobody can answer it. 1: partly true. 2: clean. Scores stay in this browser.

01 **Someone sees stock for repeat products daily** 3 min	0	1	2

02 Stockout risk is ranked by repeat customers 4 min	0	1	2
03 You know what your last stockout cost 4 min	0	1	2
04 Every sold-out product captures intent 3 min	0	1	2
05 Sold out offers something close 3 min	0	1	2
06 Late orders get an honest notice, not a discount 3 min	0	1	2
07 Customer demand signals feed the buy plan 4 min	0	1	2
08 Overstock is cleared without teaching everyone to wait 3 min	0	1	2
09 You can list a product's dependents in an hour 3 min	0	1	2
10 Retirements follow a written playbook 4 min	0	1	2
11 Reformulations are announced before they ship 3 min	0	1	2
12 Cuts are scored on basket role, not margin alone 4 min	0	1	2

0 of 24 points	0 of 12 checks scored

Score all twelve to read your band. 12 to go.

RESET SCORES

Read your score

SCORE	WHAT IT MEANS	READ NEXT
20–24	Your catalog changes are managed as retention events. The job now is measuring each one against a comparison group, so the playbook keeps improving.	The Catalog Scorecard, then Prune by Basket Role
14–19	The basics exist, but some changes still reach your best customers by surprise. Fix the zeros first.	The chapter linked from your lowest check, then Find the Dependents
8–13	Operations decides what customers can buy, and retention finds out afterwards. Connect the two before the next change.	Who a Stockout Hits, then The Discontinuation Playbook
0–7	Every stockout and retirement is costing you customers you can't see. Start with the list of what's changing and who depends on it.	Find the Dependents, then The First Thirty Days

If you've never retired or reformulated a product, score checks 10 and 11 as 1; they'll matter the first time you do. Check 9 applies to every brand, and it's the one to fix before it's needed.

PART ONE · OUT OF STOCK · CHAPTER 2

WHAT A STOCKOUT COSTS

The lost sale is the part you can see. A field test with 22,921 customers found the larger part in the orders that didn't

come afterwards.

Most stockout reports count one thing: units you could have sold while the product was out. The best measurement of what else goes missing comes from a large field test at a mail-order catalog, and it's the study every inventory decision in this guide leans on.

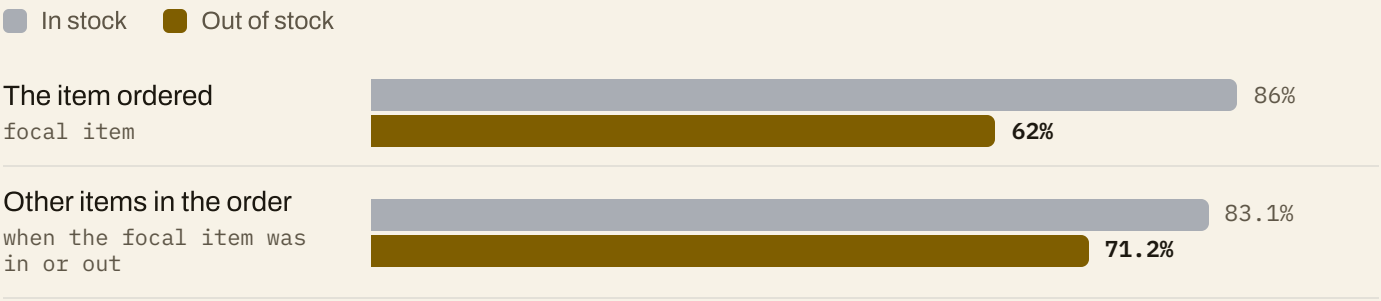
The test

Eric Anderson, Gavan Fitzsimons and Duncan Simester worked with a catalog selling bedding and home accessories. For five weeks they tracked 22,921 customers and what happened when an item they ordered was out of stock, then followed the same customers for 13 months PUBLISHED . Three findings matter for a DTC brand.

- **The item itself.** The catalog earned revenue on 86% of ordered items that were in stock, and 62% of those that were out of stock. The rest never became revenue.
- **The rest of the order.** When one item was out of stock, the other items in the same order converted at 71.2% instead of 83.1%. A stockout on one product loses part of the basket around it.
- **The next year.** Customers whose ordered items were all out of stock bought about 22% less over the following 13 months than customers who had no stockouts.

One missing item loses part of the basket around it

Share of ordered items the catalog earned revenue on, by stock status



PUBLISHED Anderson, Fitzsimons and Simester, "Measuring and Mitigating the Costs of Stockouts," Management Science, 2006.

The authors put the short-run cost of a stockout at $13.13 per item, against the $25.96 the catalog expected to earn from an item in stock, and found long-run profits fell by a further $9.56 PUBLISHED . So in their data the future cost was about 42% of the total, and a report that counts only the lost sale misses it DERIVED ($9.56 of $22.69).

> **A stockout report that counts only lost units measures the cheaper half of the damage.**

Substitution or defection

When a shopper meets a stockout, there are only a few things they can do. Daniel Corsten and Thomas Gruen, who studied out-of-stocks in grocery stores around the world, list five: buy the same brand in another size or variety, buy another brand, wait, buy the item somewhere else, or not buy at all PUBLISHED . A supermarket keeps the sale in the first two cases. A DTC brand keeps it only in the first and the third, because "another brand" and "somewhere else" both mean a competitor.

That's why the catalog finding on substitution matters. Customers there had alternatives in the same catalog, and "the level of substitution was negligible" PUBLISHED . People who order a specific product mostly want that product. Don't count on substitution happening by itself; the flows in chapter 4 exist to make it more likely.

Who gets hit

One more finding changes where to look. The study saw "little evidence that the impact of a stockout varies across customers," but found that "customers who purchase frequently from a firm are the most likely to experience a stockout" PUBLISHED . The damage per customer was about the same. The exposure wasn't. Frequent buyers simply meet more stockouts, because they place more orders.

A later study at an online grocer, by Xiaoqing Jing and Michael Lewis, found that prioritizing inventory by customers' transaction histories and basket contents "can lead to large increases in contribution" PUBLISHED . Decide what to protect by who's buying, not only by how much sells.

One caution: the catalog sold bedding, not a consumable on a reorder cycle, and a customer who reorders the same serum every six weeks may be more forgiving, or less. The direction of the findings is solid. The size in your store is something to measure, and Appendix A shows how.

Do this

- **Pick your worst stockout of the past year.** Pull the customers who had bought that product in the 180 days before it ran out, and a comparison group who bought a similar product that stayed in stock. Compare how many of each placed any order in the 90 days after. The gap is your own version of the 22%.

PART ONE · OUT OF STOCK · CHAPTER 3

WHO A STOCKOUT HITS

Rank products by the repeat customers who buy them, and a different top ten appears. That list is the one to protect.

Inventory teams rank products by units or revenue because that's what the stock report shows. Retention needs a second column: of the orders containing this product, what share come from customers who have bought from you before?

Two products, same sales

Say a brand ships 10,000 orders a month and sells two products at about 2,500 units each. The starter kit is in most first orders: 85% of its orders come from new customers. The refill is the opposite: 80% of its orders come from customers on their second order or later. The stock report treats them as twins. A three-week stockout on each is not the same event.

- **Starter kit out:** mostly new visitors see “sold out.” Some leave, and ad spend is wasted until it’s back. Painful, and visible the next morning.
- **Refill out:** about 2,000 customers due to reorder can’t. Some wait, some buy elsewhere and don’t come back. Much of the cost lands months later, in orders that never happen.

If both are running low and you can only air-freight one, the answer depends on the second column.

The repeat share of a product

For each product, count the orders containing it over the last 90 days, and the share placed by customers who had ordered before. That’s its repeat share. Sort by repeat orders (orders times repeat share) instead of by units, and read the top of the list. It’s usually refills, consumables, basics in a customer’s size and anything bought on subscription. The query is in Appendix A.

Then weight stock cover by it. A product with high repeat share and three weeks of cover is a bigger risk than a new-customer product with one week. The tool below turns one product’s numbers into a daily cost of being out, split into the part you’ll see this month and the part you won’t.

RUN YOUR NUMBERS

What would a stockout on this product cost?

Example numbers. Replace with yours. Use one product, and its orders from the last 90 days.

Orders containing it, per week

200

Share of those from repeat customers

60 %

Expected days out of stock

21 days

Contribution per order containing it

$ 30

Share of those orders lost outright

40 %

A repeat customer's contribution, next 12 months

$ 150

Drop in future buying after a stockout

22 %

600 orders that meet the stockout	$7,200 contribution lost now
$11,880 future contribution lost from repeat customers	$19,080 total cost of the stockout
$909 cost per day out of stock	

> **Each day out costs about $909, and 62% of the total is future orders from repeat customers, which a lost-sales report won't show. Spending up to about $909 a day to shorten the stockout (air freight, a second supplier, a partial early shipment) pays for itself. Most of the cost is in the future: treat this as a retention product and protect its stock first.**

Lost outright: the customer neither waited nor took an alternative from you (in the catalog study, 38% of out-of-stock items never became revenue). The 22% default is that study's drop in future buying; replace it with your own from chapter 2. First-time buyers' future orders are left out, so this is conservative.

With the defaults, a three-week stockout hits 600 orders and costs about $19,080: $7,200 in contribution lost that month and $11,880 in future contribution from repeat customers. That's about $909 a day, and 62% of it never appears in a lost-sales report DERIVED . Run the same numbers for a product with a 15% repeat share and the future part falls to under a third.

What to do with the ranking

01 **Set cover by tier**

Give the top of the repeat list more weeks of safety stock than units alone would earn, and pay for it by holding less on products bought mostly by new customers.

02 **Use cost per day as the expedite rule**

When a top repeat product is heading out, the daily cost from the tool is the most you should pay per day saved. It turns an argument about air freight into arithmetic.

03 **Point new traffic elsewhere when cover is thin**

If a product is down to its last weeks, stop sending paid traffic to it and save what's left for the people who reorder it. A new visitor who meets "sold out" costs you an ad click; a regular who meets it costs you part of a year.

Do this

- **Add a repeat-share column to the stock report** this week, and sort by repeat orders. Run the tool for the top three products and put their cost per day next to their weeks of cover.

PART ONE · OUT OF STOCK · CHAPTER 4

BACK IN STOCK, OR SOMETHING CLOSE

When something is out, capture the intent, explain why, offer a real alternative, and don't pay people to wait.

You'll run out of things. What decides the cost is what happens on the sold-out page and in the inbox of the customer who was about to reorder. Three flows handle most of it: back in stock, substitution, and the late-order notice.

Capture the intent

Every sold-out product page needs a way to say "tell me when it's back," by email and, with their consent, by text. Then:

- **Give a date or a range.** "Back around March 10" beats "coming soon." If it slips, say so before it passes.
- **Reach existing buyers first.** If the restock is smaller than the waitlist, send in waves: past buyers, then subscribers, then everyone else. A regular who finds it sold out again has been let down twice.
- **Reach out before they ask.** Customers due to reorder, from your replenishment timing in The Second Order, should hear about a stockout from you with the date and an alternative, not from the product page.

Explain, don't discount

The catalog study in chapter 2 also tested what to tell customers whose item was out of stock. Each customer heard one of five scripts: a plain "out of stock," an explanation that the supplier had a problem, "This item is out of stock because it is extremely popular," $5 off shipping, or 10% off, the last two offered in return for waiting instead of canceling. The "extremely popular" script and the 10% discount kept about the same share of items (68% and 66%). But the popular script earned $20.51 of profit per out-of-stock item and the 10% discount $15.97, and the two discounts were the least profitable of the five PUBLISHED .

The long-run result is the one to remember. In the two discount conditions, customers who had met stockouts went on to buy much less than customers who hadn't: the no-stockout group ordered 24% more units in the following months in the $5 condition, and more than 50% more in the 10% condition PUBLISHED . One reading is that a discount signals something

went wrong that you're paying to smooth over. Either way, the data gives no support for paying people to wait.

> **A short, honest reason to wait did as much as a discount, at a lower cost, without the damage later.**

So the back-in-stock and delay messages in Appendix B explain and give a date. They don't apologize with a coupon. If you want to recognize the inconvenience, do it for the customers who waited, after it ships, and not as a price.

Offer something close

Because customers rarely substitute on their own, make the alternative concrete: one or two products, named on the sold-out page and in the stockout email, chosen from what past buyers of the missing product also bought. A different size of the same thing, a sister scent, or a bundle containing it converts better than "you may also like."

Dell ran a version of this at scale. In Stanford's case on the company, a phone rep whose customer asked for a configuration could suggest a better component for a small extra payment, which arrived faster "because the component is already in stock" PUBLISHED . The rep steered demand toward what was on hand, and the customer got something at least as good. That's the model: the alternative should be equal or better, and it should be the customer's choice.

Subscriptions and late orders: the rules

Two rules from the FTC's Mail, Internet, or Telephone Order Merchandise Rule matter here PUBLISHED :

- **Shipping time.** You need a reasonable basis to ship within the time you state, or within 30 days if you don't state one. If you can't, you must ask the customer to consent to the delay, with a revised date and a free way to cancel, or refund them promptly without being asked.
- **Substitutes.** You can't send "materially different" merchandise unless the customer "expressly agrees to the substitution beforehand." For a subscription, that means a

missing product is skipped or delayed with notice, or swapped only with the subscriber's yes, or under a swap preference they set in advance.

The FTC's business guide to the rule dates from 2011, with a January 2025 update to penalty amounts. States and other countries add their own requirements; have counsel review your backorder, preorder and subscription-swap language. This isn't legal advice.

Do this

- **Open your top sold-out product on a phone.** It should have a back-in-stock signup, an expected date, and one or two named alternatives. Then check what your subscription platform does when a scheduled product is out: if it swaps without asking, change the setting today.

PART TWO · INVENTORY AS A PROMISE · CHAPTER 5

INFORMATION FOR INVENTORY

Dell ran on days of stock while competitors held months. The idea that made it work transfers to any brand whose customers reorder.

The usual answer to stockouts is more safety stock. It works, and it's expensive: cash sits on shelves, products age, and the overstock it creates

becomes the markdown problem in the next chapter. The cheaper answer is to know more about what your customers will need.

What Dell did

In a 1998 interview with Joan Magretta in Harvard Business Review, Michael Dell described suppliers who saw the company's needs day by day, so that information about real demand could stand in for stock on the shelf REPORTED . The payoff was speed. Stanford's 2000 case on the company quotes his arithmetic: with 11 days of inventory against a competitor's 80, a new Intel chip would reach Dell's customers 69 days sooner PUBLISHED .

The part most people skip is where the information came from. Dell's customers told it. In the same interview he described forecasting as a sales skill: account managers walked each customer through their future PC needs, department by department, and asked which needs were certain and which were contingent REPORTED . He counted inventory velocity among the handful of measures the company watched most closely.

Dell built to order, and most DTC brands can't. But the split between certain and contingent demand transfers directly.

Certain, contingent and unknown

Sort next quarter's demand for each top product into three layers:

- **Certain, or close to it:** scheduled subscription orders, less your usual churn per cycle, and paid preorders. You know the date and the quantity.
- **Contingent:** one-time buyers who are due to reorder, from the timing work in The Second Order, multiplied by the share who usually do. Add back-in-stock and waitlist signups at the rate they usually convert.
- **Unknown:** new customers, which depend on your ad spend, the season and luck.

Only the last layer needs a large safety buffer. The contingent layer needs a modest one, and the certain layer barely any.

Say a brand sells a refill with 4,000 active subscribers on a 60-day cycle, losing 8% per cycle. That's about 3,680 units scheduled for the next 60 days. Another 2,500 one-time buyers are due to reorder, and 35% usually do: 875 units. New customers usually take about

1,200. Forecast the total from last period's sales with a blanket 40% buffer and you'd order about 8,060 units. Buffer each layer by its own uncertainty, 40% on new customers and 20% on the contingent layer, and you need about 6,410 units, a fifth less inventory. And the customers who'll be most hurt by a stockout are now the ones best covered.

> **Your subscribers and regular reorderers have already told you most of next quarter's demand. Buy for them first.**

Ask for more information

Dell asked customers which needs were certain. A DTC brand can do a modest version:

- **Before a known stockout,** email the people due to reorder and offer to ship their next order now. It moves contingent demand into the certain layer, and it's the kindest possible stockout notice.
- **Preorders for launches and restocks,** charged or not, with an honest ship date that meets the FTC rule in chapter 4. What charged preorders do for cash is in Cash Before Growth.

Do this

- **Split next quarter's forecast for your top three reorder products** into certain, contingent and unknown. Send it to whoever places purchase orders, with the layers labelled. If they've never seen the subscription schedule, that alone changes the next order.

PART TWO · INVENTORY AS A PROMISE · CHAPTER 6

THE MARKDOWN TRAP

Overstock is the other side of a stockout. Clear it with a sitewide sale and you pay twice: once on the stock and again on every full-price customer who learns to wait.

When a forecast misses high, there's cash on a shelf and a strong temptation to run a sale. The sale clears the stock. It also discounts everything else in those orders, and teaches your best customers something about your prices.

Where the cost goes

Say a brand normally sells $100,000 a week at full price and is sitting on $40,000 of excess inventory at retail value in one product line. A week of 25% off sitewide lifts revenue to $150,000. Suppose the overstock line sells $30,000 of that. The other $120,000 includes the orders the store would have taken anyway, which would have brought in $100,000 at full price and now bring in $75,000: $25,000 given away on orders that needed no discount. Some of the extra sales were pulled forward from the weeks after. And the customers who bought at full price last month have learned to wait for the next one. That last cost is the subject of The First Offer, which covers discount training and the sale calendar; read it before your next clearance.

> **A sitewide sale clears one product by discounting every product.**

Clear it where it's wanted

Excess stock is rarely excess to everyone. It's usually excess to your forecast of new-customer demand. The people most likely to want more of it are the people who already buy it.

01 **Offer existing buyers a stock-up**

A private offer to past buyers of the product: a multi-pack, a bundle with something they also buy, or a gift with a larger order. No public price change, no code on coupon sites. This is the same

move as the last-chance stock-up in chapter 8, pointed at a surplus instead of a retirement.

02 **Use it to seed the next repeat product**

Put the overstock in orders from customers who haven't tried it, as a sample or a gift with purchase. It costs you stock you'd otherwise mark down, and a few of those customers become its next regular buyers.

03 **Bundle it with a repeat anchor**

A slow product attached to a product people reorder moves without changing either list price. Check that the bundle doesn't become the only way anyone buys the anchor.

04 **Sell off-channel**

Outlets, liquidators and closeout buyers take stock away from your own customers' view. You'll get less per unit, and you'll keep your prices intact where it matters.

Two things never to do

- **Don't ship short-dated product to subscribers without saying so.** A subscriber who gets a serum with two months left, or a pet food near its best-by date, has had the product changed on them without notice. That's a reformulation in all but name (chapter 9).
- **Don't overcorrect across the board.** After a markdown, cut the unknown layer from chapter 5, not the certain one, or next quarter's overstock becomes a stockout on the product your regulars need.

Do this

- **List every product with more than six months of cover.** For each, count past buyers you can legally email or text. Where there are enough of them, send a private stock-up offer before anyone proposes a sitewide sale.

FIND THE DEPENDENTS

Before any product is retired or changed, pull the list of customers who rely on it. Its sales figure tells you what the product earns. The list tells you what its loss would cost.

A product's revenue is the wrong number for deciding whether to retire it. What matters is who buys it and what else they'd stop buying if it went. For most products the answer is "nobody much." For a few, it's a group of customers for whom that product is the reason they're a customer at all.

What the research says about them

When the online grocer in Peter Boatwright and Joseph Nunes's study cut its range, of the households loyal to a brand or size that was eliminated, "nearly half continued purchasing within the category" PUBLISHED . Read the other way: about half stopped buying in that category from that grocer. And that's at a store that still sold other brands in the category. At a single-brand DTC store, losing the product is often losing the brand.

Laurens Sloot, Dennis Fok and Peter Verhoef found the same at a Dutch retailer that removed a quarter of its detergents: the short-term losses were "caused mainly by fewer category purchases by former buyers of delisted detergent items" PUBLISHED . The damage concentrates in the people who bought what was cut, which is exactly what an average across all customers hides.

Three tests for a dependent

Call a customer dependent on a product if any of these is true:

- **They reorder it:** it appears in two or more of their orders in the last 12 months.

- **It's most of their spend:** it's at least half of what they've spent with you in the last 12 months.
- **They subscribe to it:** it's on an active subscription.

Customers who pass two or more tests are core dependents; they get the most personal version of every message in the next chapter. Everyone else who bought the product in the last year is a trier: they're told, but they're not the risk. The query is in Appendix A, and it should be a saved segment you can run for any product in minutes.

> **A product's sales tell you what it earns. Its dependents tell you what its loss would cost.**

What's at risk

When a dependent leaves, you lose their whole spend, not just the product's share of it. So the revenue at risk from retiring a product can be far larger than the product's own sales, and the decision should weigh that against what retiring it saves: storage, minimum orders, write-offs, the time it takes to manage. The tool puts those side by side, with and without the playbook from chapter 8.

RUN YOUR NUMBERS

What's at risk if we discontinue it?

Example numbers. Replace with yours. Revenue is each customer's total yearly spend with you, on everything.

Customers who bought it, last 12 months: 2000	Share of them who are dependents: 25 %
A dependent's yearly revenue: $ 200	Another buyer's yearly revenue: $ 120
Dependents who'd leave, with no plan: 50 %	Other buyers who'd leave, with no plan: 5 %
Share of those losses the playbook prevents	Contribution margin

50 %	60 %

Yearly savings from dropping it

$ 25000

325 customers lost, with no plan	$59,000 yearly revenue at risk, with no plan
−$10,400 net yearly result of dropping it, with no plan	+$7,300 net yearly result, with the playbook

> **Discontinue only with the playbook. Without it you lose $10,400 a year; with it you gain $7,300. Dependents are 85% of the revenue at risk, though they're 25% of the product's buyers.**

Net result: savings minus the contribution lost from customers who leave. The 50% default loosely follows the grocer study above; measure your own after your next retirement. Count only savings that really go away.

With the defaults, 2,000 buyers include 500 dependents. Without a plan, 325 customers leave, taking $59,000 a year of revenue and $35,400 of contribution, so dropping the product loses $10,400 a year despite saving $25,000. With a playbook that prevents half those losses, the same decision gains $7,300 a year DERIVED . Dependents are a quarter of the buyers and 85% of the revenue at risk. The decision flips on how well you handle a few hundred people.

Do this

- **Build the dependents segment** in your email platform or warehouse, parameterized by product. Run it for every product on any list of candidates to retire, reformulate or cut, and put the count next to the product's sales in the next range review.

PART THREE · CHANGING WHAT THEY BUY · CHAPTER 8

THE DISCONTINUATION PLAYBOOK

Notice, a last chance to stock up, and a replacement tested on the people who'll lose the original. Ninety days, in that order.

Most products are retired by an operations decision and a product page that one day says "sold out" and never changes. The customers who depend on it find out by trying to reorder. The playbook replaces that surprise with a sequence of messages that gives them time, choice and something to switch to.

Why customers need a last chance

When customers learn a product they rely on is going away, many stock up whether you offer it or not. When Coca-Cola announced its formula change in 1985, by the company's own account "some consumers panicked, filling their basements with cases of Coke," and a man in San Antonio bought $1,000 worth from a local bottler REPORTED . Better that the stock-up happens with you, on a schedule you planned, than on a resale site at three times the price.

The ninety days

01

Day minus 90: decide, and pull the list

Run the dependents segment from chapter 7. Choose the replacement: the product past buyers of the original most often also buy, or the closest match in what they bought it for. Size the last buy from dependents' usage (below).

02

Day minus 75: test the replacement on them

Send the replacement free to a random sample of core dependents, 50 to 200 people, and ask one question a week later: would you reorder this instead? If fewer than half say yes, look for a better replacement before you announce. You're testing whether it replaces the original for the people losing it, not whether new customers like it.

03

Day minus 60: tell them first

A personal note to dependents, before anything public: what's changing, the honest reason, the last date to order, the replacement and why you chose it, and the stock-up offer. Triers get a shorter version a week later.

04

Day minus 45: send the replacement

A free sample of the replacement in the next order of every core dependent, with a note. The best time to try the new thing is while they still have the old one.

05

Day minus 30 to 0: remind, and handle subscriptions

A last-chance reminder at 14 days and at 3 days. Subscribers get a choice: switch to the replacement, stock up, or pause. With no answer, pause and tell them; don't swap without their yes (chapter 4 has the rule).

06

Day 0 onward: keep the page

Leave the product page up, marked discontinued, with the replacement. Customers will search for it for years.

07

Days 30, 60 and 90: measure

What share of dependents ordered anything, and what share took the replacement, compared with how the same customers ordered in the 90 days before the announcement. Reach out personally to core dependents who've gone quiet.

> **Tell the people who'll lose it before you tell anyone else, and give them something tested to switch to.**

Sizing the last buy

Say 500 core dependents each use one unit every six weeks, and you offer each up to six months' supply: four units. If 60% take the full offer, that's 1,200 units. Add the triers at a lower rate, and hold a little back for customer service. Cap quantities per customer so resellers don't take it, and price the stock-up at full price or with a modest multi-unit saving. People who depend on a product want it, not a deal; the scarcity does the work a discount would.

Stock-up revenue is pulled forward, so don't read the spike as growth, and time the replacement's first reorder reminder for when the stock-up runs out.

When there's no replacement

Sometimes there isn't one. Say so plainly and give a larger stock-up allowance. Customers remember who was straight with them when something they relied on went away.

Do this

- **Pick the next product on the retirement list** and put the seven steps on a calendar, starting 90 days before its last day. If that day is less than 90 days away, compress the steps; don't skip them.

REFORMULATION, AND NEW COKE

A new formula with the old name is a discontinuation the customer finds in their mouth. The most famous case shows why taste tests don’t settle it.

Brands reformulate for good reasons: a cheaper supplier, a cleaner ingredient list, a regulation, a better product. From the repeat customer’s side, the product they chose has been replaced without their consent. The label says the same thing and the product doesn’t.

What happened in 1985

Coca-Cola’s lead over its chief rival had been slipping for 15 years when it decided to change the formula for the first time in 99 years. Nearly 200,000 consumers took part in its taste tests, and the new formula was preferred. The change was announced on April 23, 1985. Calls to the company’s consumer line went from about 400 a day to 1,500 a day by June. A customer named Gay Mullins started a group called Old Cola Drinkers of America. On July 11, 79 days after the launch, the company brought the original back as Coca-Cola Classic REPORTED .

Company president Donald Keough said all the consumer research “could not measure or reveal the depth and abiding emotional attachment” people felt to the original REPORTED . To those who suspected the whole thing was a stunt, he said: “The truth is we’re not that dumb and we’re not that smart” REPORTED . The new formula was renamed Coke II in 1990 and discontinued in 2002 REPORTED .

Sources: The Coca-Cola Company’s history of New Coke; CBS News, 2015; History.com. Call volumes differ between accounts; these are the company’s own.

What the research missed

The taste tests asked which of two sips people preferred. They didn't ask how people would feel if the one they drank every day were taken away, which is the question the launch actually posed. The research did pick up a warning. Later histories of the company report that a minority of testers were angry at the thought of a change and said they might stop drinking Coke REPORTED . A minority of testers is easy to dismiss. It was also, very likely, the loyal core: the people most attached to the product and most likely to buy it every week.

> **A taste test asks which one people prefer. A reformulation asks whether they'll accept losing the one they have.**

So test a change on current heavy buyers, and ask "instead of," not "compared with." Treat the angry minority as the signal: they are the dependents from chapter 7. And write down, before launch, the reorder rate among existing buyers that would make you reverse. Coca-Cola reversed in 79 days under public pressure; you can decide in calm.

The reformulation playbook

01 **Ask whether they'll notice**

A new supplier for an identical ingredient may be invisible. A new scent, texture, taste, fit, size or active ingredient won't be. If they'll notice, it's the discontinuation playbook from chapter 8, with the replacement already chosen.

02 **Tell them before it arrives**

Existing buyers, and especially subscribers, hear about the change before the new version ships: what changed, why, and what they'll notice. Discovering it in the product reads as something slipped past them.

03 **Let them try it first**

A sample of the new version in their last order of the old one. Ask what they think, and read the answers.

04 **Offer the old one while it lasts**

Sell remaining stock of the old version to the people who want it, as a last-chance stock-up, instead of blending it out quietly.

05 **Watch the reorder rate**

Existing buyers' reorder rate for 90 days, against their rate before the change and the rollback line.

For supplements, cosmetics and food, a formula change can also change what the label must say. Have counsel or a regulatory specialist review the new label and any "new" or "improved" claim.

Do this

- **Ask operations for every change planned in the next six months** to a supplier, formula, scent, fit or pack size on a reorder product. For each, decide whether customers will notice. Put the ones they will into the playbook now.

PART FOUR · PRUNING THE RANGE · CHAPTER 10

FEWER PRODUCTS, FOR AND AGAINST

The research on cutting a range points both ways, sometimes in the same data. Read together, it says what to cut and what to protect.

Every few years a brand decides its range has grown too long, and someone brings a slide saying that fewer choices sell more. Sometimes they do. The careful studies of real assortment cuts found gains, losses and something in between, and the differences tell you exactly where the risk sits.

The case for cutting

Boatwright and Nunes studied an online grocer that cut its range sharply. Across the 42 categories they examined, sales rose an average of 11%; sales rose in more than two-thirds of the categories, and 75% of households increased their overall spending PUBLISHED . Customers “uniformly welcomed the elimination of clutter brought on by the reduction in redundant items,” but reacted in different ways to losing sizes, and category sales still depended on how many items were left PUBLISHED .

An earlier set of experiments by Susan Broniarczyk, Wayne Hoyer and Leigh McAlister found that shoppers’ sense of how much choice a store offered barely changed when low-selling items were removed, as long as their favorite item was still there and the category kept its shelf space PUBLISHED .

The case against

Sharad Borle, Boatwright, Nunes and two colleagues then went back to data from the same grocer. They say plainly that Boatwright and Nunes used a subset of the same categories and households PUBLISHED . This time they compared 840 households who got the reduced range, where cuts ran from 24% to 91% of items in a category, with 378 who kept the full range. The cut lengthened the expected time between deliveries by 25.0% and lowered the expected order size by 4.8%, and it reduced overall store sales. Most of the loss came from customers shopping less often, not from smaller orders. Frequently bought categories were hurt less PUBLISHED .

In between

Sloot, Fok and Verhoef studied a major Dutch retailer that removed a quarter of its detergents. They found “substantive short-term category sales losses but only a weak negative long-term category sales effect.” The losses came mainly from former buyers of the removed items. The smaller range also attracted new category buyers, and shoppers in the test stores searched faster PUBLISHED .

STUDY	WHAT WAS CUT	WHAT HAPPENED
Broniarczyk and colleagues, 1998	Low-selling items, in experiments	Perceived variety held, if favorites stayed
Boatwright and Nunes, 2001	Redundant items at an online grocer	Category sales up 11% on average
Borle and colleagues, 2005	24% to 91% of items per category, same grocer	Customers ordered less often; store sales fell
Sloot, Fok and Verhoef, 2006	25% of detergents at a Dutch retailer	Short-term loss from buyers of cut items; new buyers partly offset it

PUBLISHED Full references in Appendix C.

How to read them together

The studies aren’t contradicting each other so much as counting different things. Sales within the categories you cut can rise when clutter goes, while the customers who lost their item quietly shop less across the whole store. A category report shows the first. Only a customer-level comparison shows the second. The consistent threads:

- **Cutting duplicates is mostly safe.** Near-identical items that split the same buyers can go, and customers may find the range easier to shop.
- **Cutting someone’s item is not.** The losses concentrate in people whose product was removed, and they show up as fewer orders, not smaller ones. That’s a retention loss.
- **Judge a cut by customers, not categories.** Measure the ordering rate of affected customers against a comparison group, as Borle’s team did. A category sales chart will flatter you.

> **A cut can raise category sales and still lose customers. Only one of those shows up in the usual report.**

Do this

- **For your last range cut,** pull the customers who had bought any removed product and compare their order frequency in the six months after with similar customers who hadn't. If you've never cut, run the check before the next one, on the plan.

PART FOUR · PRUNING THE RANGE · CHAPTER 11

CHOICE OVERLOAD, MEASURED

The famous jam study is real, and so are two meta-analyses that complicate it. What they agree on points to new visitors, not regulars.

"Too many choices hurt sales" is one of the most repeated findings in marketing. It comes from one elegant field experiment. The evidence since then is more interesting and more useful than the slogan.

The jam study

In 2000, Sheena Iyengar and Mark Lepper set up a tasting table at Draeger's, an upscale supermarket in Menlo Park, California, showing either 24 jams or 6. The large display drew more people: 60% of passersby stopped, against 40%. But of those who stopped, 3% bought a jar at the large display and nearly 30% at the small one PUBLISHED .

The meta-analyses

A decade later, Benjamin Scheibehenne, Rainer Greifeneder and Peter Todd pooled 63 conditions from 50 published and unpublished experiments with 5,036 participants. They found "a mean effect size of virtually zero but considerable variance between studies" PUBLISHED . On average, more options didn't reduce choosing or satisfaction, and several attempts to reproduce overload effects hadn't found them.

Then Alexander Chernev, Ulf Böckenholt and Joseph Goodman analyzed 99 observations covering 7,202 participants and asked when overload happens rather than whether it does on average. They identified four conditions that reliably make it more likely: a complex set of options, a difficult decision task, a chooser who is unsure what they want, and a goal of minimizing effort. With those taken into account, they found the overall effect of assortment size on overload was significant, "a finding counter to the data reported by prior meta-analytic research" PUBLISHED .

So the honest summary: choice overload is not a law, and the jam result is not a typical effect. It's a real effect that shows up under specific conditions and vanishes under others.

What it means for a DTC range

Chernev's conditions sort your customers for you.

- **New visitors** are often unsure what they want. That's where overload can bite. Help them without cutting anything: a clear best seller, a starter set, a page that narrows by need.
- **Repeat customers** know what they want. A long range doesn't overload them, because they aren't choosing; they're reordering. What hurts them is their product disappearing. Give them a one-tap reorder (Used, Not Bought covers making reorder the easy path) and leave their product alone.
- **Near-identical variants** make the set more complex for everyone and help nobody. These are the duplicates from chapter 10, and they're where cutting pays.

> **Solve choice overload for new visitors with curation. Don’t solve it by removing a regular’s product.**

How to test a product page change for new visitors, and whether your traffic can carry the test, is in The Honest Test.

Do this

- **Look at your collection pages as a first-time visitor** and count the products that differ only in a way you’d need to explain. Those are candidates for merging. Then check that every repeat customer can reorder in two taps from the account page or their last email.

PART FOUR · PRUNING THE RANGE · CHAPTER 12

PRUNE BY BASKET ROLE

Margin tells you what a product earns alone. Its role in repeat baskets tells you what it earns for the rest of the store.

The usual range review sorts products by margin or by sales and draws a line near the bottom. The products under the line go. Some of them deserve to. Others are the reason a group of customers keeps ordering, and their low margin is paid back many times in the rest of the basket.

Five roles

Before a product is scored, name its role. Four numbers from Appendix A are enough: its repeat share, its reorder rate (the share of its buyers who buy it again), its dependents, and the contribution of the other items in its orders.

ROLE	LOOKS LIKE	DEFAULT DECISION
Anchor	High reorder rate, many dependents, big baskets around it	Keep, even at low margin; fix its cost
Entry	Mostly in first orders; its buyers go on to buy other things	Keep if its buyers come back; judge on what they buy next
Attachment	Rides along in baskets anchored by something else	Keep if it earns its own margin; bundle it if not
Duplicate	Its buyers also buy a near-identical sibling	Merge into the sibling, with notice to its few dependents
Dead weight	Few buyers, little repeat, nothing in its baskets	Cut, with a short version of the playbook

Score it

The scorer adds a product's basket role to its margin. It compares what the product earns on its own with what the store would lose without it: the other items in orders that wouldn't happen, and the dependents who'd leave.

RUN YOUR NUMBERS

Should this product stay?

Example numbers. Replace with yours. Use one product and its last 12 months.

Orders containing it, per year

1500

Its own contribution per order

$ 4

Yearly cost to carry it

Other items' contribution in those orders

$ 7500	$ 25
Share of those orders lost without it	Customers who depend on it
20 %	150
A dependent's yearly contribution, other products	Dependents who'd leave
$ 60	50 %

−$1,500 what it earns alone, after carrying cost	$7,500 other business in orders that need it
$4,500 dependents' other spending at risk	+$10,500 net value of keeping it

> **Keep it: this is an anchor. On margin alone it loses $1,500 a year and would be cut, but the store is $10,500 a year better off with it once you count the orders and customers it holds. Work on its cost or price before its place in the range.**

The share of orders lost without it is the hard number; start from what its buyers did when it was last out of stock. Dependents' orders are partly in the basket figure already, so if they place most of this product's orders, lower that share to avoid counting them twice. All figures are yearly contribution.

With the defaults, the product earns −$1,500 a year on its own margin after its carrying cost, and a margin-only review would cut it. But it sits in 1,500 orders a year whose other items bring $25 each; if a fifth of those orders wouldn't happen without it, that's $7,500. Its 150 dependents spend $60 a year on other products, and half would leave: $4,500. Counted properly, the store is $10,500 a year better off with it DERIVED .

A pruning at scale: Apple, 1998

The best-known range cut in consumer products came at Apple after Steve Jobs returned. Apple's annual report for fiscal 1998 says the company simplified its line during the year, moving "from approximately 15 separate individual products to three main product families," and discontinued its MessagePad and eMate lines. The company went from a net loss of $1,045 million in fiscal 1997 to net income of $309 million in fiscal 1998 FILED .

Don’t read too much into the second sentence: the turnaround had many causes, and a computer maker is not a replenishment brand. The lesson is in the first. Apple didn’t cut from the bottom of a margin ranking; it cut to a few products with distinct roles, so each customer could see which one was theirs. And the cut had casualties: the MessagePad, better known as the Newton, had devoted users. Every simplification creates dependents somewhere. The question is whether you know who they are.

Apple Computer, Inc., Form 10-K for the fiscal year ended September 25, 1998, filed with the SEC on December 23, 1998.

Do this

- **Take the bottom 20 products from your last margin ranking** and label each with its role. Run the scorer on every one labelled anchor or entry before anyone cuts it. Cut duplicates and dead weight first; they carry the least risk.

PART FIVE · RUNNING IT · CHAPTER 13

THE CATALOG SCORECARD

Nine numbers, on one page, reviewed by operations and retention together.

The scorecard exists to put the stock report and the retention report in the same meeting. Each number below connects a catalog decision to what repeat customers experienced. None of them has a published benchmark worth quoting; the target is your own trend, and a comparison group wherever a change was made.

NUMBER	HOW TO COUNT IT	HOW OFTEN
1. Repeat-weighted in-stock rate	Days each product was in stock, weighted by its repeat orders per day, over all products	Weekly
2. Cost per day at risk	For the top ten repeat products under four weeks of cover, the daily cost from the tool in chapter 3	Weekly
3. Back-in-stock conversion	Signups who order the product within 14 days of the restock message	Each restock
4. Alternative take rate	Customers shown a named alternative during a stockout who bought it	Each stockout
5. Late notices on time	Delayed orders whose customer was notified, with a cancel option, before the promised date	Monthly; target all of them
6. Demand you already know	Share of next quarter's forecast for top products in the certain and contingent layers (chapter 5)	Each buy plan
7. Clearance share	Revenue from overstock sold at a discount, as a share of all revenue, and how much of it was sitewide	Monthly
8. Dependents still ordering	After each retirement or reformulation: dependents who ordered in the next 90 days, against their own rate before the announcement	Days 30, 60, 90
9. Anchors covered	Products labelled anchor in the last range review with at least your target weeks of cover	Monthly

> **Put the stock report and the retention report in the same meeting. That's most of the fix.**

Reading it

- **Numbers 1 and 2 move together.** If the in-stock rate is high but cost per day at risk is climbing, the products about to run out are the ones regulars buy.
- **Numbers 3 and 4 tell you whether stockouts are handled or just endured.** A low take rate usually means the alternative wasn't chosen from what past buyers also bought.
- **Number 8 is the one that teaches.** Every retirement is a chance to learn how your customers respond to losing a product, and the tool in chapter 7 gets more accurate each time you replace its defaults with what you measured.

Do this

- **Build the page with whatever numbers you have,** leave the rest blank, and book a monthly 30-minute review with whoever owns inventory and whoever owns retention. The blanks are the agenda for the first one.

PART FIVE · RUNNING IT · CHAPTER 14

THE FIRST THIRTY DAYS

The lists, then the numbers, then the flows, then the playbooks. Four weeks, in that order.

Whether you're fixing this after a painful stockout or before a planned retirement, the order of work is the same. Find out what's changing and who it touches. Put numbers on it. Fix the customer-facing moments. Then write down how the next change will be handled, so it doesn't depend on who remembers.

01 **Week one: the lists**

Collect every catalog change planned for the next 90 days: known stockouts, retirements, formula or supplier changes and cuts (the map). Build the dependents segment and run it for each (chapter 7). Score the audit in chapter 1.

02 **Week two: the numbers**

Add repeat share to the stock report and sort by repeat orders (chapter 3). Run the stockout tool for the top three. Measure your last big stockout against a comparison group (chapter 2). Split next quarter's forecast for the top products into layers (chapter 5).

03 **Week three: the flows**

Back-in-stock signup and flow on every product page, sending to past buyers first. Named alternatives on sold-out pages. A late-order notice that meets the FTC rule, and a subscription setting that skips or asks rather than swapping (chapter 4). Templates are in Appendix B.

04 **Week four: the playbooks and the scorecard**

Put the next retirement or reformulation on the 90-day calendar (chapter 8, chapter 9). Label the bottom of the range by role and score the anchors before any cut (chapter 12). Hold the first scorecard review (chapter 13).

At day thirty you won't know yet whether the playbook kept the dependents; that takes 90 days after the next change. What you'll have is a catalog whose changes are seen in advance, costed in customers, and handled in the inbox before they're found on the product page.

> **See the change coming, count the customers, tell them first.**

Do this

- **Put the four weeks on the calendar today,** with one owner from operations and one from retention on every line. If that's the same person, give them this guide.

CLOSE

DAY ONE

Six things the person who owns catalog changes needs on the first day.

Whoever owns this, an operations lead, a retention lead, or you on the Monday after a stockout that hurt, needs six things on day one.

01 **The stock report, with weeks of cover**

For every active product, updated daily, with the date of the next inbound shipment.

02 **Order-line data**

Every order and its products for at least two years, joined to customers, so repeat share, dependents and basket roles can be computed.

03 **The change list**

Every planned retirement, formula, supplier, pack or price change on a reorder product, with dates. Gaps are findings.

04 **The subscription schedule**

Scheduled orders by product for the next 90 days, and what the platform does when a product is out.

05 **Access to the email and SMS platform**

To build the dependents segment, the back-in-stock flow and the notices, with the consent status of each contact.

06 **A seat in the buying meeting**

The right to see a purchase order before it's placed and to ask what it does to the products regulars buy.

Do this

- **Ask for all six in one message** today. Whatever comes back slowest is where the business knows least about its own catalog.

CLOSE

THE SHELF

The books and papers this guide leans on, and what to take from each.

Measuring and Mitigating the Costs of Stockouts

Eric Anderson, Gavan Fitzsimons and Duncan Simester, Management Science, 2006

The study behind part one. Read the section on the five scripts before you write your next out-of-stock email.

Direct from Dell

Michael Dell with Catherine Fredman, 1999

The information-for-inventory idea in Dell's own words, from the years when it was new.

Secret Formula

Frederick Allen, 1994

A history of Coca-Cola that puts New Coke in context: what the company knew, what it assumed, and how fast it moved once it saw the reaction.

Reducing Assortment and The Effect of Product Assortment Changes on Customer Retention

Boatwright and Nunes, Journal of Marketing, 2001; Borle and colleagues, Marketing Science, 2005

Read them as a pair: the same grocer, one reading by category and one by customer, and the gap between them is the lesson.

The Short- and Long-Term Impact of an Assortment Reduction on Category Sales

Laurens Sloot, Dennis Fok and Peter Verhoef, Journal of Marketing Research, 2006

Where the losses from a cut come from, and how new buyers partly make up for them.

Choice Overload: A Conceptual Review and Meta-Analysis

Alexander Chernev, Ulf Böckenholt and Joseph Goodman, Journal of Consumer Psychology, 2015

The four conditions under which too many options hurt, and so where curation pays.

Inside Steve's Brain

Leander Kahney, 2008

On Jobs's habit of cutting to a few products with clear roles. Read it next to Apple's own 1998 filing, which is less romantic and more useful.

Full references for these and the rest of the research are in Appendix C.

CLOSE

ABOUT THE AUTHOR

Andrew Lauchner is a growth and retention operator for consumer brands and the author of sixteen free books on the method. He fixes the second-purchase problem through his practice, Growth Legend, as one engagement: The Second-Purchase Sprint. He is the author of The Second Order, on turning first-time buyers into second-time buyers, and The Whole Machine, on the fundamentals of DTC growth, along with a series of field guides for DTC operators at andrewlauchner.com.

As Senior Director of Growth and Retention Marketing at Gallery Furniture, he rebuilt the customer journey and the sales playbooks together. He has worked on growth and retention at Binance and 3Commas, and has been Head of Growth and Retention at Greatness Wins and at Nexus Agriscience.

WHAT COLLEAGUES SAY

“Andrew led retention, lifecycle, and email/SMS, but what separates him from most in this space is how deeply he understands the role retention plays in the overall growth engine.”

Akram Khan, Head of Marketing at Gallery Furniture, senior to Andrew but didn’t manage Andrew directly

Andrew answers every note from operators working on this. Write to andrew@growthlegend.com or message him on LinkedIn.

APPENDIX A

FOR YOUR ANALYST

The formulas behind the three tools, and five queries that turn order lines into repeat share, dependents and basket roles.

The formulas

FOR	FORMULA	NOTES

Stockout cost	`hit = W × D / 7`
	`now = hit × L × c`
	`future = hit × r × V × h`
		W: orders per week with the product. D: days out. L: share lost outright. c: contribution per order. r: repeat share. V: a repeat customer's 12-month contribution. h: drop in future buying. Cost per day is (now + future) / D.

Revenue at risk	$rev = N \cdot d \cdot l_d \cdot R_d + N(1-d) \cdot l_o \cdot R_o$ $net = S - rev \times m \times (1 - p)$	N: buyers. d: dependent share. l: leave rates. R: yearly revenue per customer. m: margin. S: yearly savings. p: share of losses the playbook prevents (0 for no plan).

FOR	FORMULA	NOTES
Basket-adjusted value	$O \cdot c - F + O \cdot a \cdot b + n \cdot v \cdot l$	O: orders with the product. c: its contribution per order. F: carrying cost. a: other items' contribution per order. b: share of those orders lost without it. n, v, l: dependents, their other contribution, leave rate.
Repeat-weighted in-stock rate	Σ (days in stock$_i$ $\times$ q_i) / Σ (days$_i$ $\times$ q_i)	q_i: product i's repeat orders per day in the prior 90 days.

Repeat share by product

```
-- orders containing each product in the last 90 days, and the share
-- placed by customers who had ordered before
WITH ranked AS (
  SELECT o.order_id, o.customer_id, o.created_at,
         ROW_NUMBER() OVER (PARTITION BY o.customer_id ORDER BY o.created_at) AS nth
  FROM orders o
  WHERE o.cancelled_at IS NULL
)
SELECT ol.product_id,
       COUNT(DISTINCT r.order_id)                                  AS orders,
       COUNT(DISTINCT r.order_id) FILTER (WHERE r.nth > 1)         AS repeat_orders,
       ROUND(COUNT(DISTINCT r.order_id) FILTER (WHERE r.nth > 1)::numeric
             / NULLIF(COUNT(DISTINCT r.order_id), 0), 3)           AS repeat_share
FROM ranked r
JOIN order_lines ol ON ol.order_id = r.order_id
WHERE r.created_at >= CURRENT_DATE - INTERVAL '90 days'
GROUP BY ol.product_id
ORDER BY repeat_orders DESC;
```

Sort by repeat orders, not repeat share: a product with a 95% repeat share and ten orders a quarter isn't where the exposure is. Joined to daily stock snapshots, the same numbers give the repeat-weighted in-stock rate in the table above.

Dependents of one product

```
-- customers who pass any of the three tests for :product_id
WITH spend AS (
  SELECT o.customer_id,
         SUM(ol.price * ol.quantity)                                          AS total,
         SUM(ol.price * ol.quantity) FILTER (WHERE ol.product_id = :product_id) AS this,
         COUNT(DISTINCT o.order_id)  FILTER (WHERE ol.product_id = :product_id) AS orders_
  FROM orders o
  JOIN order_lines ol ON ol.order_id = o.order_id
  WHERE o.cancelled_at IS NULL
    AND o.created_at >= CURRENT_DATE - INTERVAL '12 months'
  GROUP BY o.customer_id
),
subs AS (
  SELECT DISTINCT customer_id FROM subscriptions
  WHERE product_id = :product_id AND status = 'active'
)
SELECT s.customer_id,
       (s.orders_with >= 2)                       AS reorders_it,
       (s.this >= 0.5 * s.total)                  AS most_of_spend,
       (sb.customer_id IS NOT NULL)               AS subscribes,
       ((s.orders_with >= 2)::int + (s.this >= 0.5 * s.total)::int
         + (sb.customer_id IS NOT NULL)::int)     AS tests_passed
FROM spend s
LEFT JOIN subs sb ON sb.customer_id = s.customer_id
WHERE s.this > 0
ORDER BY tests_passed DESC, s.this DESC;
```

Two or more tests passed is a core dependent; one is a dependent; zero is a trier. Export it as a segment, with consent status, before any message goes out.

What a stockout did, against a comparison group

```
-- exposed: bought the stocked-out product in the 180 days before it ran out
-- comparison: bought a similar product that stayed in stock, same window,
--             and not the stocked-out one
-- :out_date is the first day at zero stock
SELECT grp,
       COUNT(*)                                       AS customers,
       AVG((next_order IS NOT NULL)::int)             AS ordered_within_90d
FROM (
  SELECT c.customer_id, c.grp,
         (SELECT MIN(o.created_at) FROM orders o
           WHERE o.customer_id = c.customer_id
             AND o.cancelled_at IS NULL
```

```
             AND o.created_at >= :out_date
             AND o.created_at <  :out_date + INTERVAL '90 days') AS next_order
  FROM stockout_groups c   -- customer_id, grp ('exposed' or 'comparison')
) t
GROUP BY grp;
```

Match the groups roughly on how recently and how often they'd ordered. The gap between the two rates replaces the 22% default in the stockout tool. After a retirement or reformulation, use the announcement date and the dependents as the exposed group.

Basket role of each product

```
-- for each product: how often its buyers buy it again, how often it's in a
-- first order, and the contribution of the other items in its orders
WITH ranked AS (
  SELECT order_id, customer_id,
         ROW_NUMBER() OVER (PARTITION BY customer_id ORDER BY created_at) AS nth
  FROM orders
  WHERE cancelled_at IS NULL AND created_at >= CURRENT_DATE - INTERVAL '12 months'
),
lines AS (
  SELECT r.order_id, r.customer_id, r.nth, ol.product_id, ol.contribution
  FROM ranked r JOIN order_lines ol ON ol.order_id = r.order_id
)
SELECT p.product_id,
       COUNT(DISTINCT p.customer_id)                                    AS buyers,
       ROUND(COUNT(DISTINCT p.customer_id) FILTER (WHERE pc.n_orders >= 2)::numeric
             / COUNT(DISTINCT p.customer_id), 3)                       AS reorder_rate,
       ROUND(AVG((p.nth = 1)::int)::numeric, 3)                        AS first_order_sha
       ROUND(AVG(other.contrib)::numeric, 2)                           AS other_items_cor
FROM lines p
JOIN (SELECT customer_id, product_id, COUNT(DISTINCT order_id) AS n_orders
      FROM lines GROUP BY customer_id, product_id) pc
  ON pc.customer_id = p.customer_id AND pc.product_id = p.product_id
LEFT JOIN LATERAL (
  SELECT COALESCE(SUM(l2.contribution), 0) AS contrib
  FROM lines l2 WHERE l2.order_id = p.order_id AND l2.product_id <> p.product_id
) other ON TRUE
GROUP BY p.product_id
ORDER BY buyers DESC;
```

The syntax is Postgres. `contribution` is price less discounts, cost of goods and a share of fulfillment; if you don't have it, use revenue times your average margin. The roles are in

chapter 12.

APPENDIX B

TEMPLATES

Messages for stockouts, retirements and reformulations, and two internal forms. Adapt the voice; keep the structure.

Marketing messages go only to people who've consented: email with a working unsubscribe and your postal address, texts only to people who opted in, with a working opt-out. Notices about a paid order are transactional; keep promotions out of them. Have counsel review your versions.

Back in stock: email

```
SUBJECT   [Product] Is Back
PREVIEW   you asked us to tell you first. here it is.

[First name], [product] is back in stock.

You signed up to hear when it returned, so you're hearing before
we tell anyone else. We restocked [quantity or "a limited batch"];
the last run sold out in [time], so if you're due, now's the time.

[Reorder button]

Thanks for waiting.
[Name], [Brand]
```

```
[Unsubscribe link] · [Postal address]
```

Back in stock: SMS

```
[Brand]: [Product] is back. You asked us to text you first, so
here's your link before we tell anyone else: [link]
Reply STOP to opt out.
```

Out of stock: to customers due to reorder

```
SUBJECT   A Heads-Up About Your [Product]
PREVIEW   it's out until around [date]. here are your options.

[First name], you usually reorder [product] about now, and we've
run out. The next batch arrives around [date]. It's out because
[honest one-line reason: demand was higher than we planned / our
supplier is late].

Three options:
1. Get a reminder the day it's back: [link]
2. Try [named alternative], which [one line on why it's close]: [link]
3. [If you have stock of a larger size or bundle] Get it in the
   [size/bundle] we still have: [link]

[Name], [Brand]

[Unsubscribe link] · [Postal address]
```

Late order: the delay notice

```
SUBJECT   Your Order [Number] Will Ship Later Than We Said
PREVIEW   new date inside, and a one-click cancel if you'd rather.

[First name], we can't ship [product] by [original date] as
promised. Our new estimate is [revised date], because [reason].

If that works, you don't need to do anything.
If you'd rather cancel, click here for a full refund: [link]
```

```
We're sorry for the wait.
[Name], [Brand]
```

Send before the original date passes. The FTC’s Mail, Internet, or Telephone Order Merchandise Rule sets when you need the customer’s consent and when silence is enough; have counsel map your cases to it.

Discontinuation: to dependents, day minus 60

```
SUBJECT   We're Retiring [Product], and You're the First to Know
PREVIEW   the last day to order, a way to stock up, and what we'd try next.

[First name], you've ordered [product] [n] times, so I wanted you
to hear this from me before we tell anyone else.

We're retiring [product] on [date]. The honest reason: [reason].

What that means for you:
- You can order it until [date], up to [cap] units: [link]
- We think [replacement] is the closest match, because [reason].
  We're putting a free sample in your next order so you can try
  it while you still have [product].
- If you subscribe, we'll ask before changing anything.

If you have questions, reply to this email. It comes to me.

[Founder name], [Brand]

[Unsubscribe link] · [Postal address]
```

Discontinuation: last-chance SMS, day minus 3

```
[Brand]: 3 days left to order [product] before we retire it.
Stock up (up to [cap]) or try [replacement]: [link]
Reply STOP to opt out.
```

Reformulation: before it ships

```
SUBJECT   We're Changing [Product]. Here's Exactly What's Different
PREVIEW   what changes, what doesn't, and a sample before it's yours.

[First name], starting with orders after [date], [product] will
[specific change: a new supplier for X / a lighter scent / a new
fit through the waist].

What stays the same: [the things they chose it for].
Why we changed it: [honest reason].
What you'll notice: [texture / smell / taste / fit, plainly].

Your next order includes a sample of the new version. If it isn't
right for you, reply and tell us. To stock up on the current
version while it lasts: [link], up to [cap] units.

[Name], [Brand]

[Unsubscribe link] · [Postal address]
```

The replacement test question

```
SENT      7 days after the free sample arrives, to the test group only
QUESTION  "If [original] were no longer available, would you reorder
           [replacement] instead?"
           Yes / Maybe / No
FOLLOW-UP "What would it need to be closer to what you use now?"
READ      Share of Yes among core dependents. Under half: find a
          better replacement before announcing.
```

The product change brief

```
PRODUCT            name, SKU(s):
CHANGE             stockout / retirement / reformulation / cut / merge:
DATE               last day of the old version:
WHY                one line:
BUYERS, 12 MONTHS  total:        dependents:        core:
REVENUE AT RISK    from the tool in chapter 7, no plan / with plan:
REPLACEMENT        product, and test result (share of Yes):
LAST BUY           units, from dependents' usage:
MESSAGES           dates for notice, sample, reminders, subscriptions:
ROLLBACK LINE      the dependents' 90-day ordering rate that would
                   make us reverse or extend:
```

```
OWNERS              operations:            retention:
READ ON             day 30 / 60 / 90 dates:
```

APPENDIX C

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Every external source, by chapter. Web sources were read in September 2026.

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