

# Dark kitchen menu design: the costing errors that erase margin, and the method that fixes them

By  **Diego F. Parra** · Updated 2026-08-28 · Menu & Menu Engineering

**MASTERRESTAURANT®**

White Paper

## Carta diseñada para dark kitchen: los errores de costeo que borran el margen y el método correcto

Método probado en +8.400 restaurantes · 43 países

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### QUICK VERDICT

A dark kitchen menu must be priced off *contribution margin after aggregator commission*, not off plate food cost: with commissions running 15% to 30% of order value, a dish carrying 30% food cost that returned 70 contribution points in the dining room drops to 40-55 points in delivery, and that is where oversized menus die. The right method: 12 to 18 SKUs maximum, standard recipes costed per portion to the gram, price built backwards from a target margin, and a sales mix review every 30 days. When the brand also runs a physical location, keep the PRINTED menu alongside the QR menu: print governs service pace and suggestive selling on the floor, QR governs delivery, live pricing and analytics. Never QR only.

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The pattern repeats with tiring regularity: an operator opens the dark kitchen carrying the parent restaurant's full menu — forty-odd references, three premium proteins, four sauces that appear in two dishes — and discovers ninety days later that sales look fine and nothing is left. Input costs are up 35% for food and 35% for labor since 2019 (National Restaurant Association, 2024), yet the menu still carries the price architecture of a world that no longer exists.

Delivery makes it worse because it introduces a cost layer traditional costing ignores: aggregator commission is charged on the selling price, not on cost, so it eats contribution margin in direct proportion to ticket size. Food-away-from-home prices rose 3.8% in 2025 (USDA Economic Research Service, 2025) after 4.1% in 2024 (USDA Economic Research Service, 2024), and in markets such as Colombia the adjustment reached 9.8% to sustain 98,000 jobs (ACODRES, 2025). Pushing that inflation across forty dishes without menu engineering means spreading the increase blindly.

This paper treats the menu as what it actually is in an operation without a dining room: the one financial instrument you fully control. No server lifts the check, no atmosphere justifies a price, no complimentary bread buys goodwill. There is a photo, a name, a price, and a cost structure that decides whether the business exists twelve months from now.

SIDE-BY-SIDE COMPARISON

Side-by-side comparison

|                             | MENU CARRIED OVER FROM THE DINING ROOM (ERROR)                              | MENU DESIGNED FOR A DARK KITCHEN (MR METHOD)                              |
|-----------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Number of references (SKU)  | ✗ 38 to 55 dishes inherited from the dine-in menu                           | ✓ 12 to 18 SKUs built on 6 to 8 shared core inputs                        |
| Pricing base                | ✗ 30% target food cost on menu price                                        | ✓ Target contribution margin ≥45% AFTER a 15-30% commission               |
| Actual delivery food cost   | ✗ 30% theoretical drifting to 36-41% real through waste and over-portioning | ✓ ≤32% real, with variance held under 2 points                            |
| Inventory turnover          | ✗ 6 to 9 turns per year; 14% of inventory idle monthly                      | ✓ 20 to 26 turns per year; zero dead SKU by cross-recipe design           |
| Prep time per order         | ✗ 14 to 22 minutes across 5 active stations                                 | ✓ 7 to 11 minutes across 2 stations with assembly-ready mise en place     |
| Sales mix review            | ✗ Annual, or once profit drops — already late                               | ✓ Every 30 days through a menu engineering matrix, decision by quadrant   |
| Response to input inflation | ✗ Flat percentage increase across the whole menu                            | ✓ Selective re-engineering by elasticity: raise where the quadrant allows |

|                         | MENU CARRIED OVER FROM THE DINING ROOM (ERROR)          | MENU DESIGNED FOR A DARK KITCHEN (MR METHOD)                                                        |
|-------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Printed menu vs QR menu | ✗ Print is scrapped because 'everything is digital now' | ✓ BOTH: print governs floor and suggestive selling; QR governs delivery, live pricing and analytics |

Chapter 1 — What do you actually cost a dark kitchen menu against?

You cost it against contribution margin after the aggregator’s commission, never against the dish’s food cost.

A tenderloin running 30% food cost leaves 70 points of contribution when it goes out through your own direct-order window, and those same 70 points drop to 43 the moment the aggregator takes its 27% of order value, because commission is charged on the selling price and not on the cost. The arithmetic is merciless and does not negotiate over coffee. When somebody shows me a menu-engineering matrix built on pure food cost, I know they are looking at a business that does not exist: theirs lives with a 15% to 30% intermediation layer glued to every line of the ticket. And with inputs 35% dearer than in 2019 and labor another 35% higher (National Restaurant Association, 2024), the cushion that used to absorb that mistake is already spent. Costing by dish in an operation without a dining room means costing blind, and the reason is that the same product carries two distinct economies depending on where the order comes in.

Chapter 2 — The decision unit is dish-channel, not dish

Take the tenderloin from the paragraph above: 52 points of contribution on a direct order, 31 through an aggregator charging 27%. Twenty-one points of difference that no supplier negotiation will ever hand back. So the operating question stops being «what does this dish cost me?» and becomes «what does this dish leave me BY CHANNEL, and how much volume enters through each one?». If 71% of your orders arrive via aggregator, your real menu is the aggregator menu and the other one is recreational accounting. An operator who grasps this reprices by channel, pushes direct orders with his own incentives, and quits treating the platform as a benevolent partner. Menu prices at large U.S. chains rose 42% between 2020 and 2025 (One Haus), nearly double the 22% general inflation, and much of that gap is precisely this: the channel collecting. A dish with a superb margin that carries 3% of the mix saves absolutely nothing, while one with a mediocre margin and 34% turnover defines your quarterly EBITDA.

Chapter 3 — Sales mix outranks unit margin

That is the whole point of menu engineering and also the reason so many people misapply it: they stare at the unit contribution column, fall for the expensive plate, and neglect the one that pays payroll. Contribution WEIGHTED by turnover is the only figure that matters when you decide what stays on the menu and what disappears. Turn it around for a second. If tomorrow you cut the nine long-tail items that add up to 4% of the mix, what happens? Waste drops, prep time shortens, your stars turn faster, and you probably lose two customers who ordered that odd chicken. You came out ahead. Labeling a dish «Most popular» or «Chef’s favorite» lifts orders between 13% and 20% (NeatMenu, 2026), so the mix gets steered rather than endured. Raising your star item 8% can cost you 15% of volume, while that same 8% on an inelastic side dish will not move a single unit.

## Chapter 4 — Elasticity: where to raise price and where not to

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This is where almost everyone spreads the increase blindly, touching the entire menu with one percentage because it is convenient from the back office. Bad business. Food-away-from-home inflation came in at 3,8% in 2025 (USDA Economic Research Service, 2025) after 4,1% in 2024 (USDA Economic Research Service, 2024), and in Colombia the adjustment reached 9,8% to sustain 98.000 jobs (ACODRES, 2025). Move those points where demand will not feel them: drinks, add-ons, sauces, combos. Alcohol, where licensing allows it, shows up as a top-margin category for 46% of surveyed operators (Technomic / Nation's Restaurant News, 2024). Your star, by contrast, gets handled with tweezers or redesigned from the inside —portion weight, cut, garnish— before anything happens on the outside. A badly designed menu does not punish proportionally to size: it hits differently in each annual revenue band. Below 500.000 dollars, with a kitchen build under 150.000 dollars (Square, 2024), every extra item gets paid for in the owner's hours, so the recommendation is blunt: twelve to sixteen items, two proteins, zero exclusive sauces.

## Chapter 5 — The same menu weighs differently by revenue band

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Between 500.000 and one million the first head chef arrives and with him the temptation to expand; the brake there is turnover, not appetite. From one to five million the problem migrates to inventory and to food cost variance between shifts, which is where a forty-item menu bleeds without anyone spotting it in the monthly P&L. Above five million the dominant cost stops being the input and becomes coordination: a price matrix by channel, by virtual brand, by city. With each staff departure costing 150% of salary in replacement (StaffedUp, 2025), a complex menu is also a menu that burns cooks. Above five million in revenue, the celebrity-chef restaurant or the large-format themed concept opening dark kitchens plays with costs the small band would not recognize. The menu stops being a list of dishes and turns into a brand license: there are royalties, there is standards auditing, there is product photography costing what a full startup kitchen costs —remember the sub-150.000 dollars of a QSR per Square (2024)— and there is reputational risk an anonymous outlet never runs.

## Chapter 6 — High end: when the chef's brand walks into the ghost kitchen

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A badly executed plate in a dining room gets fixed by the manager with a glass of wine; in delivery it becomes a two-star review, and each rating star moves between 5% and 9% of revenue according to Michael Luca of Harvard Business School. That is why in this band the menu gets cut MORE, not less: eight to ten armored items, zero tolerance for variation, a price that holds the promise. Chipotle opened between 315 and 345 locations in 2025 with over 80% in drive-thru format, and its menu still fits on a napkin. The sequence we work with at Masterrestaurant inverts the usual order, and that inversion is the entire contribution. First you set the target contribution margin per channel after commission; then you derive the price; last, and only last, you ask which dish fits inside that price with the food cost available. Diego F.

## Chapter 7 — The Masterrestaurant method applied to the dark menu

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Parra insists on a hard threshold that stays off the table: maximum 32% food cost per dish, with payroll, rent and utilities NEVER loaded onto the plate, because those live at break-even and pushing them into the recipe card produces prices the market rejects. I will admit that for years I argued the opposite, prorating fixed expenses onto every recipe, and all I achieved was expensive menus whose margins still refused to close. The figure that governs all of this is prime cost, not food cost in isolation. And with labor 35% dearer than in 2019 (National Restaurant Association, 2024), the room for error has vanished. Open your last ninety days of sales, sort items

by units sold, and mark the line where the cumulative reaches 80% of volume: everything below it is a candidate for removal. That exercise, which takes two hours, usually reveals that between nine and fourteen items generate under 5% of orders while occupying storage space, mise en place time and the cook's attention.

### Chapter 8 — What to do Monday with the menu you already have

Then calculate, dish by dish and channel by channel, the contribution after commission —15% to 30% depending on the platform— and rank them from highest to lowest. What you see in that second column is your real business. One figure to close and open at once: matcha delivery orders grew 34% in 2025 in the United States (Grubhub, 2025 Delivered Report), and whoever caught it early folded it in at a marginal input cost. Margin opportunities show up in the categories nobody watches, almost never in the main course. FIRST, the unit of decision. On a dine-in menu the unit is the dish; on a dark kitchen menu the unit is the dish-channel pair, because the same beef cut yields 52 contribution points on direct orders and 31 through an aggregator charging 27%. Costing without splitting channel is costing blind. SECOND, the weight of sales mix. A dish with a beautiful margin at 3% of the mix rescues nothing; a mediocre margin at 34% of the mix defines your EBITDA.

### Chapter 9 — Four differences that decide the margin

Menu engineering exists precisely so you stop looking at dishes and start reading contribution weighted by turnover. THIRD, elasticity. An 8% increase on your star reference can cost you 15% of volume, while the same 8% on an inelastic side item moves not a single unit. Flat increases are the most expensive mistake and the most common one whenever inflation squeezes. FOURTH, the implicit CapEx of variety. Every extra reference drags an exclusive input, a storage slot, a procedure and a waste probability. Forty dishes in 40 square meters is not a generous menu, it is a structural vulnerability wearing a generous name.

#### POINT BY POINT

### Criterion-by-criterion analysis

#### PRICING BASE

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

30% theoretical food cost on menu price, inherited from the dining room.

**B · MASTERESTAURANT Target**

contribution margin  $\geq 45\%$  after commission and packaging.

**Verdict:** Method B wins outright: commission is charged on gross sales, so ignoring it is not an accounting nuance, it is costing the wrong business.

## MENU BREADTH

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

38-55 references so 'no customer is lost'.

**B · MASTERRESTAURANT** 12-18 SKUs over shared core inputs.

**Verdict:** B. Every extra reference buys variety with inventory turnover, and inside 40 square meters turnover is the scarce asset.

## RESPONSE TO INPUT INFLATION

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

Flat percentage increase across the whole menu.

**B · MASTERRESTAURANT** Selective adjustment by quadrant and demand elasticity.

**Verdict:** B, and the gap widens with shock magnitude: under the 20% stress scenario a flat increase destroys volume precisely where demand is elastic.

## REVIEW FREQUENCY

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

Annual or reactive, once profit falls.

**B · MASTERRESTAURANT** Menu engineering matrix every 30 days with decision by quadrant.

**Verdict:** B. Margin erosion is continuous, so an annual snapshot only confirms damage already done.

## PRINTED MENU VS QR MENU

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

Print is dropped for savings and modernity.

**B · MASTERESTAURANT** Printed menu on the floor plus QR for delivery, live pricing and analytics.

**Verdict:** B, with an honest caveat: a pure dark kitchen without seating has QR as its only channel, yet the moment a room with tables exists print returns, because that is where average check rises.

## TREATMENT OF SALES MIX

**A · MENU CARRIED OVER FROM THE DINING ROOM (ERROR)**

Dish margin is read in isolation.

**B · MASTERESTAURANT** Contribution is weighted by real share of the mix.

**Verdict:** B. A 68% margin on 2% of the mix is an anecdote; a 44% margin on 31% of the mix is your EBITDA.

### SIDE-BY-SIDE COMPARISON

## What most operators do, and why it fails STRUCTURAL VULNERABILITY

- ✗ Ports the parent restaurant's entire menu into the ghost kitchen without re-costing a single spec sheet.
- ✗ Prices off a 30% theoretical food cost and ignores that commission is charged on gross sales.
- ✗ Keeps slow-moving dishes because 'they are the brand', even at under 4% of the mix.
- ✗ Buys premium protein in formats that force 18% to 24% yield loss at butchery.
- ✗ Never measures food cost variance, so the gap between theoretical and real cost stays invisible.
- ✗ Raises prices linearly when inflation hits, with no read on per-dish elasticity.
- ✗ Removes the printed menu at the sister location and loses the channel where average check actually rises.

## The Masterrestaurant method applied to the menu MASTERRESTAURANT

- ✓ Builds the menu backwards from a target contribution margin, not forward from competitor pricing.
- ✓ Caps the operation at 12-18 SKUs sharing 6-8 core inputs, which lifts turnover and frees working capital.
- ✓ Costs per portion to the gram, with a signed standard recipe and yield measured after butchery and cooking.
- ✓ Deducts aggregator commission before calling any dish profitable.
- ✓ Places every reference on the menu engineering matrix and decides by quadrant: promote, re-engineer, reposition or retire.
- ✓ Applies pricing psychology inside the digital listing: anchoring, favorite tags and display order.
- ✓ Keeps the printed menu at any location with seating and treats QR as the complement for delivery, updates and analytics.

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| Response to input inflation | ✗ Flat percentage increase across the whole menu                            | ✓ Selective re-engineering by elasticity: raise where the quadrant allows                           |
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### THE NUMBERS THAT MATTER

## Sector indicators framing the decision



**20%**

lift in orders when a dish is tagged as chef's favorite

**9.8%**

menu price adjustment in  
Colombian restaurants during 2025

**46%**

of operators name alcohol among  
the highest-margin menu categories

## VISUALIZATION

### The numbers, visualized

rise in US food and labor costs since 2019



increase in food-away-from-home prices in 2025



menu price increase at large US chains between 2020 and 2025



lift in orders when a dish is tagged as chef's favorite



menu price adjustment in Colombian restaurants during 2025



of operators name alcohol among the highest-margin menu categories



Sources: [National Restaurant Association 2024](#) · [USDA Economic Research Service 2025](#) · [One Haus 2025](#) · [NeatMenu 2026](#) · [ACODRES 2025](#)

Chart by [masterrestaurant.com](#)

## REAL CASE

*“We arrived with 41 references and a 4.1% operating profit. We cut to 15 SKUs over seven core inputs, re-costed every spec sheet per portion, and deducted aggregator commission before setting price: real food cost fell from 38.6% to 31.2%, weighted contribution margin climbed from 39 to 51 points, and prep time dropped from 19 to 9 minutes. We billed 6% less and earned 218,000 USD more per year on a 2.4 million operation.”*

**— CFO of a three-unit dark kitchen group, revenue band 1 to 5 million USD per year, Latin American market**

## HOW TO APPLY IT IN YOUR RESTAURANT

### 90-day implementation roadmap

#### 1 Days 1-20 · Theoretical vs real cost audit per SKU

Rebuild every standard recipe using net weights after butchery and cooking, never purchase weights. Compute food cost variance as  $\text{Variance} = (\text{Real Cost} - \text{Theoretical Cost}) / \text{Sales}$  and rank references by deviation. With input costs 35% above 2019 levels (National Restaurant Association, 2024), a three-point drift on your highest-turnover dish outweighs the entire dessert line. Nothing gets decided here; this stage only measures.

#### 2 Days 21-40 · Menu engineering matrix by channel

Plot unit contribution margin against share of sales mix, and run it separately for direct orders and aggregator orders, because a 15-30% commission moves dishes across quadrants. Stars get protected, workhorses get re-engineered on gram weight or supplier, puzzles get repositioned with pricing psychology, and dogs get retired. A reference below 3% of the mix for two consecutive months has no financial defense, however much the chef loves it.

#### 3 Days 41-65 · Menu and price architecture rebuild

Cut to 12-18 SKUs over 6-8 core inputs and build each price backwards from the target margin, deducting commission before declaring a dish profitable. Apply favorite tagging, which shifts 13% to 20% of orders toward the marked reference (NeatMenu, 2026), and order the digital listing by descending anchor. If the brand runs a location with seating, print the new architecture: QR complements, it never replaces.

#### 4 Days 66-90 · KPI dashboard and review cadence

Install four indicators with an owner and a frequency: weekly real food cost, monthly prime cost, monthly weighted contribution margin and inventory turnover. Set the alarm threshold at 32% food cost per dish — the Masterrestaurant ceiling, not the target — and schedule the mix review every 30 days. Cadence beats sophistication: a spreadsheet reviewed monthly outperforms a BI nobody opens.

## Frequently asked questions on dark kitchen menu costing

### How many dishes should a dark kitchen menu carry?

Between 12 and 18 references built on 6 to 8 shared core inputs. Below 12 the brand loses reasons for repeat orders; above 18 inventory turnover falls, waste climbs and prep time balloons. The real constraint is not taste, it is square meters and tied-up capital.

### Is delivery food cost calculated the same way as dine-in?

No. Dine-in allows straight portion costing against menu price; delivery requires deducting aggregator commission first, running 15% to 30% of order value, plus packaging. A dish with 30% theoretical food cost may land at 40-55 real contribution points rather than 70.

### Can I drop the printed menu once I have a QR menu?

No, and the Masterrestaurant method is firm on this. Print controls service pace, menu narrative, suggestive selling and hospitality at any location with seating; QR adds delivery, accessibility, live pricing and analytics. Keep BOTH, each in its own role.

### How often should the sales mix be reviewed?

Every 30 days. With food-away-from-home prices moving 3.8% a year (USDA Economic Research Service, 2025) and chains accumulating 42% between 2020 and 2025 (One Haus), an annual review arrives nine months after margin erosion started.

## DATA & SOURCES

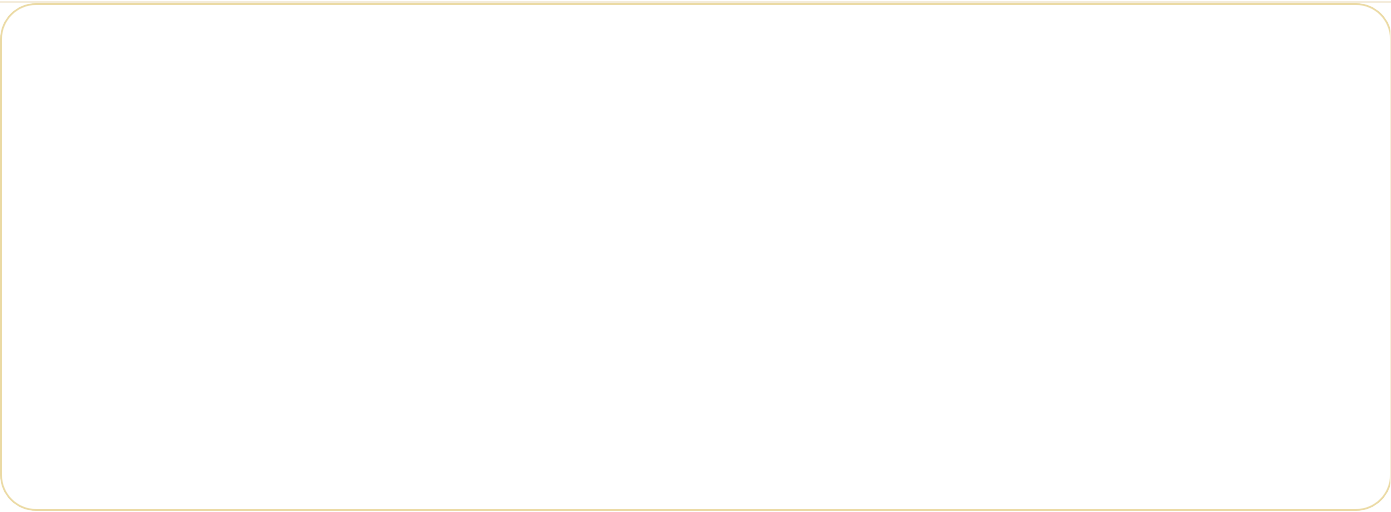
### Sector data 2026 (official sources)

Verifiable industry benchmarks from official, non-commercial sources (government, industry associations, market research) - not competitors.

| Metric                                                            | Benchmark 2026          | Source                                   |
|-------------------------------------------------------------------|-------------------------|------------------------------------------|
| Personas con alergias alimentarias comprobadas (EE. UU.)          | Más de 30 millones      | US FDA / FARE — 2024                     |
| Visitas anuales a urgencias por alergias alimentarias (EE. UU.)   | Más de 200.000 al año   | Food Allergy Research & Education (FARE) |
| Consumidores que evitan productos con alérgenos mayores (EE. UU.) | 25% de los consumidores | Food Allergy Research & Education (FARE) |

| Metric                                                        | Benchmark 2026                                               | Source                                          |
|---------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------|
| Lealtad de comensales con alergias alimentarias               | <b>36% siempre visita el mismo lugar vs 17% sin alergias</b> | Estudio Food Allergy and Foodservice — PMC      |
| Umbral de la regla de etiquetado de calorías en el menú (FDA) | <b>Cadenas con 20 o más locales</b>                          | US Food and Drug Administration — Menu Labeling |
| Reducción de calorías por el etiquetado en el menú            | <b>≈7,3% menos de calorías</b>                               | US FDA / estudios de menu labeling              |

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