

Centralized Production Kitchens: Financial and Operational Viability Analysis of the Commissary Model

By  **Diego F. Parra** · Updated 2026-07-09 · Expansion & Franchising

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White paper

Centralized Production Kitchens: Financial and Operational Viability Analysis of the Commissary Model

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QUICK VERDICT

Straight verdict: a commissary stops being optional once a group crosses 8-10 units and its food cost variance across locations exceeds 3 percentage points. Below that threshold, the CapEx of a central plant (in QSR format it starts where a full unit's build-out ends, USD 150,000 to 750,000 per unit per Toast 2025) destroys margin instead of creating it. This is not a culinary decision: it is a unit economics decision. Centralizing turns food cost into a purchasing-and-process variable, controllable and negotiable at volume, instead of 10 chefs improvising the same recipe with 10 different waste curves. The mistake I see over and over is building a commissary to show off installed capacity rather than to cut prime cost. If the plant doesn't push theoretical versus actual cost below 32% food cost per dish and doesn't recover its CapEx in 24-36 months, it isn't infrastructure: it's a liability with LED lights.

Ten independent kitchens turn out ten versions of the same dish, ten waste curves, ten actual food costs that rarely match theory. Every new unit replicates the concept and the variance along with it. The commissary (a centralized production kitchen) promises to close that gap by turning production into a controllable industrial process. The price: heavy CapEx and a different operating architecture.

One question drives this white paper, answered from the cash register: at what point does a commissary stop being a capital burden and become a margin lever? It is not a chefs' debate. It is unit economics, operational maturity and food cost variance risk at scale. Segment (QSR, fast casual, full service), unit count and input inflation all move the answer, so each chapter breaks down along those three dimensions.

SIDE-BY-SIDE COMPARISON

Side-by-side comparison

	ON-SITE KITCHEN (DECENTRALIZED)	COMMISSARY (CENTRALIZED PRODUCTION)
Initial CapEx per production unit	✗ Bundled into the unit fit-out (USD 150,000-750,000 per QSR, Toast 2025)	✓ One-time concentrated CapEx: USD 600,000-2.5M by capacity and equipment
Food cost variance across locations	✗ High: 3-6 pt typical dispersion between units	✓ Low: <1.5 pt; the central process standardizes theoretical vs. actual cost
Prime cost (food + labor combined)	✗ Full service 60-65%; rises with every kitchen doubling stations	✓ Dilutes production labor; concentrates volume and lifts buying power
Sustainable net margin by format	✗ Full service 3%-5%; fast casual 6%-9% (Peppr POS 2025)	✓ Enables the top of the range by cutting waste and standardizing purchasing
Supplier negotiating power	✗ Fragmented: each unit buys its volume separately	✓ Consolidated: volume buying, short supply chains
Model profitability threshold	✗ Optimal up to 6-8 units or low recipe complexity	✓ Profitable from 8-10 units with process-intensive recipes
CapEx recovery (payback)	✗ N/A (distributed cost)	✓ 24-36 months if food cost drops 2-4 pt on consolidated sales

Chapter 1 — At what point does a commissary make sense?

A commissary stops being optional once a group crosses 8-10 units and food cost variance across locations exceeds 3 percentage points. Below that, the CapEx doesn't clear:

a QSR franchise already runs USD 150,000 to 750,000 per unit per Toast 2025, and a central plant starts where a large unit's fit-out ends. I've seen it in dozens of groups. Six kitchens can still be tamed with audits and a standard recipe; the eighth brings its own waste curve, the ninth another. Latin America's fast food market hit USD 61.49 billion in 2025 per Market Data Forecast. At that scale, one loose point of food cost, multiplied across ten registers, eats the 6%-9% fast casual margin Peppr POS 2025 reports. Centralizing has one concrete financial reason: food cost stops being a result and becomes an input variable. You audit one process, not ten kitchens.

Chapter 2 — A commissary turns food cost into an input variable

The mistake I see again and again is measuring waste at closing; a commissary buys and processes to a fixed spec, so output is standardized from birth. Little room for error here, with sector net margins of 3%-9% per Statista. Ten units buying separately never negotiate like one plant consolidating volume, and that is where short supply chains are born. The global QSR market is projected at USD 520 billion by 2033 at a 4.7% CAGR per Market Research Intellect 2026. Fail to industrialize production at that scale and you hand competitors margin they already capture through purchasing power. Boards rarely object to a commissary's price tag; they object to the accounting exposure of an asset that takes 24-36 months to pay off. On-site, CapEx hides in each unit's fit-out. Centralized, it lands in one outlay someone has to sign. For scale: a full McDonald's franchise runs USD 1.47 to 2.73 million per the 2024 FDD via Franchise Chatter; a Burger King, USD 1,239,500 to 2,255,500 per its 2025 FDD.

Chapter 3 — Concentrated CapEx is an accounting objection, not an operational one

A serious commissary sits between one and two premium units of that kind. As a Masterrestaurant consultant, Diego F. Parra frames it for the board this way: not an expense, but ten scattered operational risks converted into one controllable asset, with returns measured in closed food cost variance. Ten units buying separately never negotiate like one plant consolidating their volume: purchasing power scales non-linearly. That marginal efficiency, the cradle of short supply chains, is what the decentralized model never reaches. The average fast food franchise fee is USD 35,000 on investments of USD 598,000 to 1.6 million per GrowthFactor, which analyzed 149 FDDs in 2026; on that cost base, one point of food cost won through centralized buying beats any promotion. Chains chasing scale know it. Chipotle targets 7,000 restaurants in North America per Restaurant Dive 2025; Wingstop, 10,000 units worldwide. Nobody gets there with ten kitchens buying alone: they get there because a central plant fixes spec and price, and nails down waste before the input ever reaches the unit.

Chapter 4 — How does the threshold change by segment and inflation?

The threshold falls with input inflation and rises with menu fragmentation.

In QSR, where Mexico's burger market moved USD 2.4 billion in 2024 at +14.3% annual growth per Nation's Restaurant News, production is repetitive and a commissary pays off fast even at six units. Full service is another story: at 3%-5% net margin per Peppr POS 2025, a broad menu dilutes the savings and break-even drifts toward 12-15 units. Fast casual, high volume on a tight menu at 6%-9% margin, is the ideal ground. And if inflation spikes? Every point of variance costs double, the plant's savings grow in step, and break-even moves forward six to nine months. One rule fits nobody, which is why this analysis splits the threshold by segment and price scenario. Closing the gap between theoretical and actual food cost is the commissary's job: in decentralized groups that gap opens 3 to 6 percentage points between best and worst unit.

Chapter 5 — The real case: closing the gap between theoretical and actual food cost

I've audited groups where theory said 28% and three locations billed 34% actual; six points on a 6%-9% fast casual margin separates growth from closure. Pressure isn't easing, with more than 860,000 restaurants operating in the U.S. as of November 2025 per Datassential. And the market has gone K-shaped: the top 250 chains grew +3% while the next 250 fell -6.2% per Technomic 2025. The operating difference between them is process control, nothing more. A central plant doesn't guess waste; it fixes it on the line, spec and weight controlled before dispatch to each unit. A commissary destroys margin when built too early or oversized: a plant at 40% utilization loads fixed cost onto too few registers and sinks the unit economics. Here sits the model's paradox: the same infrastructure that promises margin to ten units eats it at five, because savings per unit grow with volume and fixed cost waits for no one.

Chapter 6 — When does a commissary destroy margin instead of creating it?

The fix is a hard register-side rule: don't centralize until you can fill at least 70% of the line, and compute break-even without loading payroll or rent onto the plate;

those belong to the group's break-even, not per-dish food cost. Oversizing is expensive against franchise investments of USD 598,000 to 1.6 million per GrowthFactor 2026. Starbucks runs 38,587 locations per Restaurant Business 2024 on a logistics network that only closes with density. The Masterrestaurant lesson: a margin lever once scale pushes variance out of control; before that, an idle asset the balance sheet won't forgive. A commissary changes what food cost is: an outcome (what came out) becomes an input variable (what you buy and process). That is the real financial case for centralizing. Auditing 10 kitchens turns into controlling 1 process. On-site kitchens spread CapEx across units and hide it in the fit-out; a commissary concentrates it in one visible outlay the board has to approve.

Chapter 7 — The differences the board decides, not the chef

The objection is rarely the amount. It is the accounting exposure of an asset that takes 24-36 months to pay off. Buying power scales differently. Ten units purchasing separately never negotiate like one plant consolidating volume; that consolidation is where short supply chains are born, along with a marginal efficiency the decentralized model can't reach.

POINT BY POINT

On-site vs. commissary: criterion-by-criterion analysis

FOOD COST CONTROL

A · ON-SITE KITCHEN (DECENTRALIZED)

Reactive: audited after month-end close in each unit

B · MASTERESTAURANT Preventive:

controlled in the central process before dispatch

Verdict: Commissary wins: it turns food cost into a controllable input variable.

CAPEX EXPOSURE

A · ON-SITE KITCHEN (DECENTRALIZED)

Distributed and hidden in each fit-out

B · MASTERESTAURANT Concentrated in

a visible outlay the board approves

Verdict: On-site wins on optics; commissary wins on real cost control.

BUYING POWER

A · ON-SITE KITCHEN (DECENTRALIZED)

Fragmented per unit

B · MASTERESTAURANT Consolidated at

volume with short supply chains

Verdict: Commissary wins clearly from 8-10 units onward.

FRANCHISE SCALING SPEED

A · ON-SITE KITCHEN (DECENTRALIZED)

Each franchisee replicates their kitchen's variance

B · MASTERRESTAURANT Identical product

from a plant with a replicable manual

Verdict: Commissary wins for aggressive expansion plans.

MODEL OPERATIONAL RISK

A · ON-SITE KITCHEN (DECENTRALIZED)

Distributed risk: one unit doesn't take down the network

B · MASTERRESTAURANT Concentrated

risk: the plant is a single point of failure

Verdict: Nuanced tie: the commissary demands redundancy and a contingency plan.

SIDE-BY-SIDE COMPARISON

When the on-site kitchen still wins BELOW THRESHOLD

- ✗ Groups of 1 to 6-8 units: commissary CapEx isn't amortized by the volume generated yet.
- ✗ Simple-execution concepts (assembly, few production SKUs): centralized waste control adds little.
- ✗ Markets with fragile cold logistics or long distances: distribution cost eats the purchasing savings.
- ✗ Premium full service where 'made fresh on-site' perception is part of the average ticket.

When the commissary becomes mandatory MASTERESTAURANT

- ✓ 8-10+ units with food cost variance above 3 percentage points across locations.
- ✓ High-turnover QSR and fast casual: the centralized process stabilizes theoretical vs. actual cost.
- ✓ Process-intensive recipes (stocks, mother sauces, baking, marinades) that multiply waste in open kitchens.
- ✓ Aggressive franchise scaling plans where the replicable operations manual demands identical product.

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THE NUMBERS THAT MATTER

Figures that frame the decision (sources 2024-2026)

150000USD

Minimum initial investment to open a franchised QSR per unit (2024-2025)

598000USD

Lower average investment for a fast food franchise (149 FDDs analyzed)

9%

Net margin ceiling of a well-run fast casual (full service 3%-5%)

61490M USD

Latin America fast food market in 2025 (toward 94,980M by 2034)

860000LOCATIONS

U.S. restaurants as of November 2025, all-time record

REAL CASE

“A fast casual group with 11 units had 31.4% food cost in its flagship and 37.8% in the most distant one: 6.4 points of dispersion no one saw in the consolidated number. We centralized mother sauces, marinades and portioning in a USD 780,000 commissary. Within 14 months the variance fell to 1.2 points and consolidated food cost dropped from 34.9% to 31.6%. On annual sales of USD 9.2M, those 3.3 points are USD 303,000 a year. The CapEx paid off in 31 months. It wasn’t culinary magic: it was turning 11 waste curves into 1 measurable process.”

— Diego F. Parra, founder of Masterrestaurant, on a group operations redesign case during expansion

HOW TO APPLY IT IN YOUR RESTAURANT

90-day roadmap to decide and build the commissary

1

Days 1-20 · Variance diagnosis and territorial prefeasibility

Measure the actual food cost of EACH unit for 4 weeks and calculate the dispersion (food cost variance) against the theoretical cost. If variance exceeds 3 percentage points across units, the commissary case exists. In parallel, run territorial prefeasibility with location intelligence: site the plant minimizing cold-chain miles to the location network. Without this diagnosis, you build installed capacity blind.

2

Days 21-45 · Financial model: CapEx, payback and stress scenarios

Build the commissary's unit economics: equipment and cold-chain CapEx, incremental OpEx (production payroll, logistics) and expected savings in food cost and volume buying. Simulate 3 input-inflation scenarios (5%/12%/20%) and verify payback lands at 24-36 months in the base case. If it doesn't cut food cost at least 2 points on consolidated sales, the model doesn't close.

3

Days 46-70 · Process standardization and replicable operations manual

Translate every mother recipe into a process sheet with yield, target waste and critical control point. This replicable operations manual is what makes 1 plant produce what 10 kitchens produced with 10 criteria. Define theoretical cost per SKU and the daily actual-cost measurement system. It is the foundation of food cost variance control at scale.

4

Days 71-90 · Controlled pilot and tracking KPIs

Start by supplying 2-3 representative units (not the whole network). Measure for 3 weeks: food cost variance, prime cost, actual vs. target waste, logistics on-time delivery and unit operational satisfaction. Adjust routes and portioning before scaling. The pilot catches 80% of the cold-logistics problems a full rollout would make you pay for dearly.

FAQ

Frequently asked questions from a CFO or Expansion Director

From how many units is a commissary worth it?

As a rule, from 8-10 units with food cost variance above 3 percentage points across locations. Below that, the CapEx—which starts where a full QSR unit's investment ends, USD 150,000-750,000 per Toast 2025— isn't amortized by the volume generated. Recipe complexity can lower that threshold.

How long to recover the investment?

In a well-sized model, CapEx payback lands at 24-36 months, provided centralization cuts food cost 2-4 points on consolidated sales and consolidates buying power. If it doesn't reduce food cost by at least 2 points, the model doesn't close and the asset becomes a liability.

Does a commissary improve net margin or just stabilize it?

Both, but it stabilizes first. It closes food cost variance dispersion and then, via volume buying and lower waste, enables the top of the margin range by format: 6%-9% in fast casual versus 3%-5% in full service, per Peppr POS 2025.

What's the biggest risk of centralizing production?

Cold logistics. A poorly sited commissary or one with long distances turns purchasing savings into distribution cost and cold-chain break risk. That's why territorial prefeasibility with location intelligence is step 1, not a later detail.

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
Meta global de unidades de Wingstop	10.000 locales en el mundo	Restaurant Dive — Wingstop growth 2025
Guía de crecimiento de unidades de Wingstop en 2025	17% a 18% (subió desde 14%-15%)	Restaurant Dive — Fast casual store development 2025
Aperturas netas de Wingstop en el primer semestre de 2025	255 restaurantes netos (129 en el Q2)	Restaurant Dive — Fast casual store development 2025
Meta de locales de Raising Cane's al final de la década	1.600 locales	Restaurant Business — Fast casual growth 2025
Aperturas récord de Shake Shack en 2025	45 a 50 locales propios (base de 630, meta de 1.500)	Restaurant Business — Fast casual growth 2025
Restaurantes McDonald's en el sistema a fin de 2025	45.356 locales (43.477 en 2024)	McDonald's — Restaurants by Market 2025