

Delivery zone and radius: the kilometre that eats your *EBITDA*



By **Diego F. Parra** · Updated 2026-08-29 · Dark Kitchens & Foodtech

QUICK VERDICT

Verdict: choosing delivery zone and radius is a unit-economics decision, not a coverage decision. The profitable radius sits where contribution margin per order still covers the delivery cost and the algorithm's time penalty: in practice a dense 2.5 to 3.5 km core worked at high frequency beats an 8 km map worked halfway. The traditional method draws a circle and waits; the MASTERESTAURANT method builds the territory from density data, per-cell average ticket and real travel time, then defends it with local SEO, Google Business Profile and geotargeted paid media.



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An operator in the 500 thousand to 1 million USD annual band loses six to nine points of contribution margin not because of food cost, but because it delivers to customers sitting eleven minutes further out than the kitchen can absorb at peak.

The global food-delivery app market closed 2024 at USD 110 billion, up 15.5% (Business of Apps, 2025), and China alone is projected at USD 539.87 billion in delivery revenue for 2026 (Statista, 2026): the channel is settled, what is not settled is how far your rider goes.

Sector net margin runs between 3% and 9% (Statista), while high-performing ghost kitchens hold 10% to 30% (OysterLink, 2025); that gap is not opened by the recipe, it is opened by the geometry of the operation.

SIDE-BY-SIDE COMPARISON

Side-by-side comparison

	TRADITIONAL METHOD	MASTERRESTAURANT METHOD
Declared delivery radius	✗ 6 to 10 km fixed, drawn by eye on the app map	✓ 2.5 to 3.5 km core plus an outer ring gated by minimum ticket and time slot
Sustained net margin	✗ 3% to 9%, the sector band (Statista)	✓ 10% to 30%, the band of high-performing ghost kitchens (OysterLink, 2025)
Kitchen opening investment	✗ Dining-room site: capital locked into seats the delivery channel never uses	✓ USD 75,000 to 200,000 ghost-kitchen start-up (OysterLink, 2025), concentrated in production
Brand model on the territory	✗ One brand, one map, one channel	✓ Hybrid: 86.9% of US virtual brands run from an existing kitchen (Locmatic, 2024)
Territory expansion route	✗ Open another site and duplicate rent and payroll	✓ Virtual brand: 32% of restaurant expansion strategies in 2025 (Technomic via Apicbase, 2025)
Reference density per cell	✗ No measurement: you deliver wherever an order lands	✓ Replicates China's scale logic, with over 3,200 ghost-kitchen facilities (Coherent Market Insights, 2024)
Reading the marketplace algorithm	✗ Rappi's commission gets blamed for the lost margin	✓ Acceptance time, cancellation rate and 5★ reviews are worked as ranking levers
Capital available to the sector	✗ Assumes foodtech no longer funds anything	✓ USD 16 billion in global agrifoodtech in 2024 (AgFunder, 2025), with developing markets at USD 3.7 billion, up 63%

1. What delivery radius is actually profitable for a restaurant?

A profitable radius ends where the contribution margin per order stops covering the cost of serving it, and in most urban kitchens that point lands between 3 and 4 kilometers, not the 8 the app enables by default.

The gap between those two numbers explains much of why sector net margin sits between 3% and 9% (Statista) while well-shaped ghost kitchens hold 10% to 30% (OysterLink, 2025). An order at 7 kilometers does not cost twice what one at 3.5 costs: it costs more, because during peak hours it locks up a courier for twenty min-

utes, stretches the promised window, drags the rating down and, with it, your position in the marketplace ranking. The cost is COMPOUND, and that compounding shows up on no single line of your income statement. If you bill less than half a million dollars a year, close the radius at 2.5 kilometers and stop negotiating it over the phone when an order comes in from 6.

2. Under USD 500,000 a year: one core, 2.5 kilometers, no exceptions

At that volume you have one kitchen, two or three people on the line and zero slack: every distant order you accept steals capacity from three nearby ones you could have delivered hot. The operating threshold I use with these operators is simple and measurable: if more than 15% of a week's orders exceed 30 minutes door to door, the radius is wrong, not the courier. Keep the scale of the channel in mind before overexposing yourself to it: the delivery app market closed 2024 at USD 110 billion, growing 15.5% (Business of Apps, 2025), and even so the small band wins by concentrating, not by covering map. An operator in this band loses 6 to 9 points of contribution margin not because of food cost, but because of delivering to customers sitting 11 minutes farther out than the kitchen can absorb at peak.

3. USD 500,000 to 1 million: where 6 to 9 points vanish unnoticed

The right move here is splitting the radius into two rings with different pricing: a core from 0 to 3.5 kilometers with the full menu, and an outer ring from 3.5 to 5 with a minimum ticket 35% higher and no dishes that degrade in transit. Diego F. Parra keeps pushing operators at Masterrestaurant to check this against the weekly cash, never against the map: measure contribution margin per order in each ring for four weeks and amputate whichever ring fails to cover its own delivery cost. The outer ring almost always adds volume and subtracts profit. Past a million dollars a year, the answer to demand falling outside your radius is not stretching the radius: it is opening a second production point. Initial investment in a ghost kitchen runs USD 75,000 to 200,000 (OysterLink, 2025), a figure you recover faster than the cost of sustaining a year of long deliveries with a deteriorated rating.

4. Above USD 1 million: a second kitchen before a wider radius

The trigger I recommend has two variables: 40 weekly orders rejected or delivered outside window in one zone for eight consecutive weeks, plus density enough for 6 orders per peak hour inside that polygon. Without both conditions together, the second kitchen is a real estate bet dressed up as expansion. With them, it is arithmetic. Above 5 million a different profile shows up: the large-format themed restaurant or the brand signed by a media chef, where the promise of the experience does not travel well on a motorbike. That operator should restrict the delivery radius to 2 kilometers and build a separate delivery menu, because the reputational damage of a signature dish arriving lukewarm costs more than the orders left on the table. The profitable route for monetizing distant demand is the virtual brand: today 32% of restaurant expansion strategies run through virtual brands (Technomic, via Apicbase, 2025), and 86.9% of US virtual brands operate a hybrid model on existing kitchens (Locmatic, 2024).

5. Above USD 5 million: the high-end operator and the format problem

You cover more map under another name, not under the expensive one. Once a group crosses ten million dollars a year, leaving the radius to each local manager is the most expensive silent leak in the portfolio. That decision moves up to the board table and gets made with overlapping polygons: no location should share more than 20% of its service area with another under the same brand, and the radius gets recalculated each quarter against real order density, never against a franchisee's ambition. Delivery Hero billed €12.8 billion in its delivery segment in 2024, up 22% year over year (Delivery Hero, Q4 and FY 2024), and DoorDash moved USD 21.3 bil-

lion of marketplace GOV in the fourth quarter alone (DoorDash, 2024): those platforms optimize their network, not yours. Someone on your side has to do it. Widening the radius soothes the anxiety of a slow week and wrecks the economics of the next one.

6. Wide coverage is emotional insurance; density is an asset

According to Alex Canter, founder of Nextbite and operator of Canter's Deli, the advantage of virtual brands lies in squeezing idle capacity out of a kitchen that already exists, and that logic breaks the moment a courier carries twenty minutes of that capacity into a neighborhood where you have three customers. Run the whole scenario: double the radius, you quadruple the area, order density per square kilometer drops to a quarter, average delivery time rises, ratings fall, the algorithm surfaces you less, and you end up with the same revenue spread over twice the logistics cost. It is a trap you keep paying for months. Open the platform report, filter by distance and calculate contribution margin per order across three bands: 0 to 3 kilometers, 3 to 5, and beyond 5. You need each band's average ticket, the commission actually charged, the shipping cost you subsidize and the food cost of the top seller in each zone.

7. What to measure Monday morning

Operators under 500,000 almost always find the beyond-5-kilometer band working below variable cost, while the 500,000 to 1 million band finds it barely at breakeven, which is worse because it does not hurt. China's market projects USD 539.87 billion in delivery revenue for 2026 (Statista, 2026); your problem is not the size of the channel, it is how far your van goes with money on top. The traditional radius is defined by what the platform allows; the MR radius is defined by the point where contribution margin per order crosses the cost of serving it. Two different numbers, and they almost never match. An order at 7 km does not cost twice an order at 3.5 km: it costs more, because at peak it locks the rider, stretches the delivery window, pushes the rating down and, with it, ranking visibility inside the app.

8. What separates a profitable radius from a decorative one?

The real cost compounds. Broad coverage is psychological insurance against weak demand; density is a financial asset.

According to Alex Canter, founder of Nextbite and operator of Canter's Deli, the edge of virtual brands lies in squeezing idle capacity out of a kitchen that already exists, not in covering more map with the same kitchen. Territory is defended with a local digital engine: a complete Google Business Profile, recent 5★ reviews and paid media geotargeted to the serviceable polygon. An ad shown 9 km from the kitchen buys traffic the operation cannot monetise. In dark kitchen vs brick and mortar, the physical site pays for seats and the digital one pays for distance. Confusing those two economies is the error I keep finding in the expansion plans that reach my desk.

POINT BY POINT

Decision scorecard: where each method wins

PER-KILOMETRE UNIT ECONOMICS

A · TRADITIONAL METHOD Average

delivery cost calculated across the whole book, distance ignored

B · MASTERESTAURANT Contribution

margin measured per order and per cell, with mileage as a variable

Verdict: MR wins: the average hides precisely the orders that destroy margin.

TERRITORY RISK

A · TRADITIONAL METHOD Assumes

covering more city diversifies risk

B · MASTERESTAURANT Concentrates on

the densest cells and gates the rest

Verdict: MR wins: dispersion does not diversify risk, it multiplies variable cost.

OPERATIONAL SCALABILITY

A · TRADITIONAL METHOD Growth means

another site with its rent and its payroll

B · MASTERESTAURANT Growth means

another virtual brand on the existing kitchen (32% of 2025 expansion strategies, Technomic via Apicbase)

Verdict: MR wins while the kitchen still has idle capacity; past that point a second physical node makes sense again.

LOCAL ACQUISITION

A · TRADITIONAL METHOD Broad city-wide media and an unmaintained Google listing

B · MASTERRESTAURANT Media geotargeted to the serviceable polygon, optimised listing and active 5★ review management

Verdict: MR wins: paying for clicks outside the serviceable radius is buying cancellations.

INITIAL INVESTMENT

A · TRADITIONAL METHOD Dining-room site, capital locked into seats the digital channel never uses

B · MASTERRESTAURANT USD 75,000 to 200,000 in a production kitchen (OysterLink, 2025), the rest in brand and data

Verdict: It depends on the band: below 500 thousand USD a year the ghost kitchen protects cash; above 5 million the dining room remains the brand asset.

READING THE PLATFORM COMMISSION

A · TRADITIONAL METHOD Treated as a fixed tax and offset by raising prices

B · MASTERRESTAURANT Treated as acquisition cost and benchmarked against the cost of an owned customer

Verdict: MR wins: the commission only turns expensive when the order lands far away, late and rated three stars.

SIDE-BY-SIDE COMPARISON

What the traditional operator does COVERAGE AS STRATEGY

- ✗ Sets the widest radius the app allows, on the belief that further reach means more sales.
- ✗ Measures success in order count rather than contribution margin per order.
- ✗ Discovers the cost of the kilometre six months in, when EBITDA still refuses to show up.
- ✗ Treats the Google Business Profile listing as paperwork instead of the local acquisition asset it is.
- ✗ Competes on price against kitchens carrying 40% less fixed cost per order.

What the MR decision architecture does MASTERRESTAURANT

- ✓ Splits the territory into cells and measures average ticket, density and real travel time in each one.
- ✓ Sets the radius where contribution margin per order is still positive after delivery cost.
- ✓ Uses a gated outer ring with minimum ticket and time window instead of opening or closing the whole map.
- ✓ Anchors acquisition in local SEO, recent 5★ reviews and geotargeted media over the exact polygon the kitchen can serve.
- ✓ Treats every virtual brand as a unit with its own unit economics and its own operational due diligence.

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THE NUMBERS THAT MATTER

The numbers behind the decision

110 BN USD Food-delivery app market in 2024, up 15.5% year on year
30% Margin ceiling of high-performing ghost kitchens, against 3-5% for the traditional restaurant
86.9% US virtual brands running a hybrid model from an existing kitchen
32% Restaurant expansion strategies routed through virtual brands in 2025
200 K USD Ceiling of ghost-kitchen start-up investment (floor: 75k USD)

3700

M USD

Agrifoodtech investment in developing markets in 2024, up 63% year on year

VISUALIZATION

The numbers, visualized

Food-delivery app market in 2024, up 15.5% year on year



Margin ceiling of high-performing ghost kitchens, against 3-5% for the traditional restaurant



US virtual brands running a hybrid model from an existing kitchen



Restaurant expansion strategies routed through virtual brands in 2025



Ceiling of ghost-kitchen start-up investment (floor: 75k USD)



Agrifoodtech investment in developing markets in 2024, up 63% year on year



Sources: [Business of Apps 2025](#) · [OysterLink 2025](#) · [Locmatic 2024](#) · [Technomic \(Apicbase\) 2025](#) · [AgFunder News 2024](#)

Chart by masterrestaurant.com

REAL CASE

“We delivered up to 8 km because switching off orders scared us. When we cut the core to 3.2 km and left a ring with a minimum ticket, orders fell 14% in two weeks and contribution margin per order rose enough to close the quarter at 11% operating margin, inside the 10% to 30% band OysterLink reports for high-performing kitchens. We bill 720 thousand USD a year from one kitchen and two virtual brands; the big map was costing us around 4,000 USD a month in orders that arrived late and got rated three stars.”

— Dark-kitchen operator with two virtual brands, 500 thousand to 1 million USD annual band, city of 2.4 million people

Strategic roadmap in three phases

1 Phase 1 · Margin cartography (weeks 1 to 3)

Deliverable: a 1 km² cell map with orders, average ticket and real delivery time for the last 90 days, crossed against delivery cost per cell. Cells get ranked by contribution margin per order, never by volume. Success metric: identify the 20% of cells producing at least 60% of margin and document the kilometre mark where margin per order drops below 18%. This is the operational due diligence of the territory, and no later decision is taken without it.

2 Phase 2 · Cut and gated ring (weeks 4 to 8)

Deliverable: core radius fixed between 2.5 and 3.5 km according to measured density, plus an outer ring enabled only with a minimum ticket and in low-saturation windows. Geotargeted media budget is reassigned to the serviceable polygon and the Google Business Profile listing is cleaned up with hours, product photography and review responses. Success metric: contribution margin per order up five points and average delivery time under 32 minutes in the core, with ratings held at 4.7★ or better.

3 Phase 3 · Densification and second brand (months 3 to 6)

Deliverable: a second virtual brand on the same kitchen, aimed at a daypart or an occasion the first one does not cover, inside the hybrid model that 86.9% of US virtual brands already use (Locmatic, 2024). Success metric: raise off-peak kitchen utilisation by at least 25 points and add 12% to 20% of incremental revenue without opening a single new square metre or moving the validated radius.

FAQ

Questions an owner asks before signing

What is the right delivery radius for a dark kitchen from scratch?

Start with a 2.5 to 3.5 km core and widen it only once contribution margin per order is validated. The right radius is not a universal number: it is the point where delivery cost and the time penalty stop eating margin. With sector margins between 3% and 9% (Statista), one badly calculated kilometre erases the whole quarter.

Should I close the dining room and live off Rappi delivery orders?

No, unless your dining-room unit economics are already broken. Some 86.9% of US virtual brands run hybrid from an existing kitchen (Locmatic, 2024), and only 13.1% are online-only. The dining room delivers average ticket, table turnover and beverage margins delivery cannot replicate; the ghost kitchen is an extra layer of utilisation, not a replacement.

What does it cost NOT to fix the delivery zone this year?

It costs the gap between the sector's 3-9% net margin (Statista) and the 10-30% high-performing kitchens sustain (OysterLink, 2025). On a 1 million USD operation that gap is between 70 thousand and 200 thousand USD of EBITDA left on the street, spread across distant orders that arrive late and drag the rating down.

How do I increase sales on Rappi without widening the radius?

By working the three levers the algorithm actually rewards: acceptance time, cancellation rate and recent reviews. A tight radius delivers faster, holds ratings at 4.7★ or above and lifts visibility inside the area you can genuinely serve. Then add a second virtual brand on the same kitchen, the route already used by 32% of sector expansion strategies (Technomic via Apicbase, 2025).

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
Pedidos diarios de delivery en China (Meituan y Ele.me) 2025	>60 millones/día	Mordor Intelligence — APAC Food Platform-to-Consumer Delivery 2025
Cuota conjunta de Zomato y Swiggy en delivery en línea de India	>95%	Business of Apps — Food Delivery App Report 2025
Cuota de Grab en delivery de comida del Sudeste Asiático 2024	53,9%	Momentum Works — Food Delivery Platforms in Southeast Asia 2024
Inversión global en agrifoodtech 2024	USD 16.000 millones (-4% interanual)	AgFunder — Global AgriFoodTech Investment Report 2025
Récord histórico de inversión en agrifoodtech (2021)	USD 51.000 millones	AgFunder News — Global agrifoodtech funding 2024
Inversión agrifoodtech de startups en EE.UU. 2024	USD 6.600 millones (+14%)	AgFunder News — Global agrifoodtech funding 2024

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