

Assumptions behind the PoV numbers

Every assumption we made where Binzagr data was missing: the value we used, how we reached it, what it feeds, how much the result moves if it is wrong, and the question that confirms or replaces it. Labels used throughout: **Actual** (in Binzagr data), **Researched** (published source), **Assumption** (our judgement, varied in the ranges), **Client** (stated by Binzagr).

The headline figures these assumptions produce

Figure	Value (range)	Label	Built from
Recoverable warehouse labour	SAR 639,485 a year (P10–P90 SAR 491,647–805,806; scenarios SAR 218,740–1,578,771)	Simulated	Shift productivity (Actual scans) × target pace × capture rate × cost per paid hour (wage assumptions)
People paid, Jeddah	161 FTE (115–199)	Inferred	Employee ids in the scans + pay-basis assumption (who is paid on days they do not scan)
Labour cost, Jeddah	SAR 9.22M a year (6.84M–11.42M)	Simulated	Paid hours × loaded cost per hour
Paid time with no scan	58.9% of paid hours; SAR 3.65M Feb–Sep (about SAR 5.5M a year)	Inferred	Pay basis (salaried every working day) minus scanned time. No saving claimed
Value roll-up (all levers)	SAR 2.18M a year (1.06M–3.79M) + SAR 0.63M one-off cash	Simulated	Ten levers; each is a measured driver × one or two assumptions (section 4)

Ask these first: they move most of the money

- **Pay basis and workforce composition (Q1–Q4 below).** Our whole labour model assumes Binzagr employs the Jeddah warehouse staff on a **monthly salary**. If part of the workforce is paid by the hour or the day, or supplied by a manpower agency, the head count, the labour cost and the "paid time with no scan" all change, and the hourly rate we value savings at is replaced by the agency rate.
- **Wages by role** and the **Saudi / expat mix**: they set the SAR 23.86 per paid hour that turns every hour into riyals.
- **Attendance by payroll number (G2)**: decides whether 115, 161 or 199 people are paid, and how much of the 58.9% unscanned time is leave, unscanned work or idle time.
- **The target (top quarter of own shifts) and the 70% capture rate**: together they explain most of the spread in the SAR 639K.
- **Van-day cost and route capture**: they drive the largest distribution lever (route productivity, SAR 971K).
- **Actual Jeddah P&L and client rate card (G1, G4)**: the simulated P&L earns 6.5% by construction until these arrive.

1. Pay basis and workforce: the questions for Binzagr

What we assumed: every payroll-confirmed person in the WMS user list is a **salaried, monthly-paid** Binzagr employee, paid on every working day (Saturday to Thursday) from the first to the last day they appear in the scans; 90% of those days are expected to be worked after annual leave and public holidays. Logins that are not in the user list (64 a month on average) are paid only on the days they scan. Monthly cost is converted to an hourly rate as: loaded monthly cost $\times 12 \div 281$ worked days $\div 8$ hours. Overtime uses the legal hourly rate (monthly $\div 240$) plus 50% of hourly basic (Art. 107).

#	Question to Binzagr	Why it matters	What changes if the answer differs
Q1	How many Jeddah warehouse staff are paid a monthly salary , and how many are paid by the hour or by the day ? Please give the split by site and by role (tally clerk, storekeeper, picker, forklift driver, loader, supervisor).	Monthly staff cost the same whether they scan or not; hourly staff cost only the hours worked.	Hourly staff are removed from the "paid every working day" basis: the head count (161), labour cost (SAR 9.22M) and unscanned paid time (58.9%) fall. Savings on hourly staff are real cash per hour saved; on monthly staff they need fewer heads.
Q2	Is any labour supplied by a manpower agency or contractor ? If so, the rate per hour or per day, the minimum billed hours, and roughly how many people a month.	Agency labour is the most flexible cost and usually the first to be cut.	The agency rate replaces our salary build-up for those people, and recoverable hours on them convert to cash immediately.
Q3	Actual monthly pay by role : basic, housing, transport, food and any other allowance; employer costs (GOSI, levy, iqama, medical, end of service, tickets, recruitment).	Sets the cost per paid hour (SAR 23.86 operative, 24.43 storekeeper, 51.25 manager).	The SAR 639K and the labour cost scale almost in proportion: wages at our low case give about SAR 435K, at our high case about SAR 853K.
Q4	Workforce mix: share of Saudi staff among operatives and storekeepers.	A Saudi operative costs SAR 5,946 a month loaded vs SAR 4,101 for an expat (our build-up).	10% Saudi gives about SAR 613K, 30% about SAR 666K (base 20%: SAR 639K).
Q5	Attendance (clock in / out) by payroll number and day, Feb–Sep 2026 (G2).	Separates leave, sickness, unscanned work and idle time inside the 58.9% of paid time with no scan.	Fixes which head count is right (115 / 161 / 199). Every 10% of the unscanned time proven avoidable is worth about SAR 550K a year on top of the SAR 639K.
Q6	Shift pattern : hours per shift, days per week, overtime policy, Ramadan hours, split shifts, shifts longer than 12 hours.	We assumed 8 h a day, 26 days a month, 6 h in Ramadan, overtime only beyond legal hours.	Changes paid hours, overtime cost and the badge-sharing flags (sessions over 12 h are split into two people).
Q7	Job titles by payroll number (G22).	We only have the WMS menu level (tally clerk / storekeeper / manager).	Allows wage by job and a picker vs forklift vs loader comparison; replaces the role-alignment lever assumption.
Q8	What are the logins not in the user list (WA.AD.nnn, plain numbers, system logins)?	44,149 paid hours sit on them; we treated them as operatives paid only on scan days.	If they are office or system postings, their hours and cost drop out; if they are casual or agency workers, Q2 applies.

2. Warehouse labour model (Jeddah)

How the SAR 639K is built: (1) standard time per activity and line size = the median performer's time from Binzagr's own scans; (2) each full shift (30+ scans, 4+ hours) earns standard hours for its scans; productivity = earned ÷ scanned hours; (3) target = top-quarter productivity of shifts in the same role; (4) recoverable hours = scanned hours – earned ÷ target, × 70% capture; (5) 17,388 hours Feb–Sep, valued at each role's cost per paid hour = SAR 426,323, annualised × 12/8 = SAR 639,485 (about 11 FTE). Example: a real picking shift with 7.31 h scanned and 3.61 h earned would need 5.23 h at target; gap 2.08 h × 70% = about 1.5 h, worth about SAR 35.

Assumption	Value used (low / base / high)	How we reached it	What it feeds	Effect on the result if only this changes	Ask
Target pace	Top 40% / top 25% / top 10% of own shifts, same role	Assumption. Like-for-like benchmark Salman asked for; engineered standards would claim ~75% and be dismissed	Recoverable labour (biggest driver, rank correlation 0.74)	Top 40%: SAR 447K. Top 10%: SAR 919K. Median target: SAR 352K	Is matching your best 25% of shifts a fair target?
Capture rate	50% / 70% / 90%	Assumption: rostering is lumpy, so not every saved hour becomes a saved head	Recoverable labour (second driver, 0.59)	50%: SAR 457K. 90%: SAR 822K	How much slack can rostering remove?
Pay basis (who is paid when)	Scan days only / payroll people salaried every working day / every id salaried	Inferred from employee ids and the user list	Head count, labour cost, unscanned paid time. Not the SAR 639K	115 / 161 / 199 FTE; labour cost SAR 6.9M / 9.2M / 11.3M a year	Q1, Q5
Basic salary, operative	SAR 1,400 / 1,800 / 2,300 a month	Researched: job postings (Jeddah 1,800–2,000, Riyadh 1,200–1,400), GASTAT wages	Cost per hour, labour cost, SAR 639K	See Q3 (whole wage package: SAR 435K–853K)	Q3
Housing allowance	15% / 25% / 30% of basic	Researched: market norm 25%; shared accommodation cheaper	Cost per hour; GOSI and end-of-service base	Part of Q3 range	Q3
Transport, food	SAR 100 / 200 / 300; food 0 / 200 / 300 a month	Transport assumed; food from a Jeddah posting	Cost per hour	Part of Q3 range	Q3
Expat levy, iqama	SAR 700 / 800 / 800 a month; iqama SAR 650 a year	Researched (statutory)	Cost per hour	Part of Q3 range	Q3
Medical, ticket, recruitment	Medical SAR 800 / 1,500 / 2,500 a year; ticket SAR 2,000 every 2 years; recruitment SAR 4,000 / 6,000 / 10,000 per hire over 2 years	Medical and recruitment assumed; ticket from a posting	Cost per hour	Part of Q3 range	Q3
Saudi share of operatives	10% / 20% / 30%	Assumption: mix unknown	Blended monthly cost	SAR 613K / 639K / 666K	Q4
Saudi wage	SAR 4,000 / 5,000 / 6,000 a month; basic 75% of wage	Researched: Nitaqat threshold, GASTAT	Blended monthly cost	Small (rank correlation 0.10)	Q3, Q4
Storekeeper basic	SAR 1,500 / 1,900 / 2,500	Researched postings: no real premium over operatives	Storekeeper cost; role-alignment lever (SAR 35K)	Role-alignment lever SAR 0–185K	Do storekeepers earn more than tally clerks?
Manager wage	SAR 5,000 / 8,000 / 12,000 + 15–30% on-cost	Researched (Paylab)	Labour cost only (managers never benchmarked)	Very small (112 paid hours)	Q3
Working calendar	26 days a month, 8 h a day, 6 h in Ramadan, 21 days leave, 10 public holidays	Researched: Labour Law Art. 98, 101, 109	Monthly to hourly conversion (281 worked days); paid hours	Cost per hour moves with worked days	Q6

Assumption	Value used (low / base / high)	How we reached it	What it feeds	Effect on the result if only this changes	Ask
Overtime	Hours beyond legal hours + break, up to 12 h; paid hourly wage + 50% of basic	Researched: Art. 107	Labour cost (1,390 overtime hours)	Small	Q6
End of a shift	Gap of more than 6 h with no scans across all of a person's badges	Assumption from the scan pattern	Sessions, paid shifts	Changes shift counts, not the method	Q6
Idle gap between scans	Up to 15 / 30 / 45 min counts as work; longer is a break	Assumption	Earned hours, productivity	Small (rank correlation -0.06)	Is a 30-minute gap normal work?
Standard time	Median performer (lenient P60 / P50 / tight P40)	Inferred from 4.5M scans; not engineered	Earned hours, productivity, heads needed	Shifts the scenarios (SAR 219K–1.58M with other levers)	Share the time-and-motion study (G11)
Full shift	30+ scans and 4+ hours	Assumption	Which shifts are benchmarked (12,043)	Shorter shifts carry no saving	-
Batch posting	Over 90% of scans in the same second = paperwork, not benchmarked	Assumption (95th percentile of sessions is 0.89)	Excludes 871 sessions, 6,748 h from savings	Small	Q8
Badge sharing	Sessions over 12 h are two people	Researched: 12 h legal presence limit	625 high / medium-risk shifts flagged	Flags only; no saving claimed	Do people share badges?

3. Simulated Jeddah P&L

Assumption	Value used	How we reached it	What it feeds	Effect	Ask
EBIT margin	4% / 6.5% / 10%	Researched: DHL Supply Chain FY2025	Baseline P&L earns 6.5% by construction	Only the change after savings is a result	Actual Jeddah P&L (G1)
Labour share of warehouse opex	40% / 50% / 60%	Researched benchmarks	Other opex = labour × (1/share – 1)	Moves EBIT, not the saving	Actual P&L
Rate card	Cost-recovery rates we derived (e.g. SAR 2.17 per case picked, SAR 34.35 per pallet received)	Simulated so revenue covers cost + 6.5%	Revenue per client and activity	Badr quoted SAR 0.50–0.80 per case: real prices matter more than any benchmark	Rate per client and activity (G4)
Storage revenue	Not modelled	Pallet positions unknown	Revenue understated	-	Storage occupancy per client (G16)
Client on billing rows	Linked when the scans in the same second belong to one client	Inferred (88.6–96.6% linked)	Revenue per client	-	Billing volumes per client (G23)

4. Distribution value roll-up (SAR 2.18M a year)

Each lever = a driver measured in Binzagr data × one or two assumptions. Lever values are SAR a year, low / base / high.

Lever	Formula	SAR a year	Assumptions it rests on
V01 Productivity to own top quartile	Section 2 (Monte Carlo)	492K / 639K / 806K	Target, capture, wages, Saudi share, pay basis
V02 Role alignment	Storekeeper hours on floor work × wage difference	0 / 35K / 185K	A10 storekeeper premium SAR 0 / 0.57 / 3.00 an hour
V03 Route productivity (fleet right-sizing)	Van-days × 25% gap to best-quartile outlets a day × A08 × A07	378K / 971K / 1.78M	A07 van-day cost, A08 share captured
V04 Returns above the median rep	Bring reps above the median return rate down to it	106K / 354K / 693K	Returns are rep-driven, not expiry or principal-driven
V05 Win back lapsed outlets	Lapsed annual value (SAR 1.43M) × A03 × A01	17K / 46K / 86K	A03 win-back rate, A01 margin, lapsed definition
V06 Whitespace: next-best SKU	Unprompted pick sales × A02 × A01	14K / 47K / 117K	A02 prompting uplift, A01 margin
V07 Collections	Past due × A06 = one-off cash; × A04 = yearly saving	11K / 24K / 41K + 295K one-off	A06 collection rate, A04 cost of capital, FIFO ageing
V08 Safety stock	Stock reduction at cost = one-off; × A05 = yearly	48K / 67K / 87K + 334K one-off	A01 margin, A05 carrying cost
V09, V10 (not in the total)	Van-rep productivity; price-spread proxy	706K; 397K	Overlap with other levers; needs trade-spend data

Id	Assumption	Low / base / high	How we reached it	Effect if only this changes	Ask
A07	Cost of one van-day (rep + van + fuel)	SAR 350 / 450 / 550	Assumption: rep loaded wage + van lease + fuel	V03: SAR 755K at 350, SAR 1.19M at 550	Actual cost per van-day
A08	Route productivity gap captured	25% / 50% / 75%	Assumption	V03: SAR 485K at 25%, SAR 1.46M at 75%	Can vans be cut, or only re-routed?
A01	Gross margin on extra sales	12% / 16% / 20%	Researched: Almunajem Foods FY2025	V05, V06 move in proportion; V08 slightly	Actual gross margin by principal
A02	Extra buying when a rep offers the pick	10% / 25% / 50% of the unprompted rate	Assumption: unprompted buying was measured (13.4% of picks); prompting needs a pilot	V06: SAR 19K / 47K / 93K	Run a pilot with a few vans
A03	Lapsed outlets won back	10% / 20% / 30%	Assumption	V05: SAR 23K / 46K / 69K	Past win-back rates
A06	Past-due balance collected	30% / 50% / 70%	Assumption	One-off cash SAR 177K / 295K / 414K	Collection history
A04	Cost of capital	6% / 8% / 10% a year	Assumption: SAR financing cost	V07 yearly saving	Binzagr's borrowing rate
A05	Inventory carrying cost	15% / 20% / 25% a year	Assumption: capital + storage + obsolescence	V08 yearly saving	Carrying cost used internally
A10	Storekeeper vs tally clerk wage gap	SAR 0 / 0.57 / 3.00 an hour	Researched postings: no real premium	V02: SAR 0 / 35K / 185K	Q3, Q7

5. Definitions and rules behind the predictions

Assumption	What we used	How we reached it	What it feeds	Ask
Churn	An active outlet with no purchase in the next 8 weeks	Assumption: no closure data	Churn model (AUC 0.77), riskiest-20% list	Is 8 weeks without buying how you define a lost outlet?
Lapsed outlet	No purchase for the longer of 60 days or 3× its usual gap	Assumption, scaled to each outlet's rhythm	500 lapsed outlets worth SAR 1.43M a year; V05	Closure confirmations (G19)
Receivables ageing	Each customer's 20 Oct balance allocated to its newest invoices (oldest paid first); due date from the payment-term code	Corrected: no payment history	Past due SAR 591K, DSO 24 days, SAR 336K unmatched, collection list	Invoice-level ledger with payments (G8)
Credit limit 9,999,999	Means no limit; not used as a risk signal	Actual: 10,755 customers carry it	Collection rules	Confirm, and share real limits if any
Clusters	Six sales teams grouped by van; Personal Care outlets matched to the others by location and name	Inferred (site set-up)	Cluster adoption model, penetration	Official cluster definition and one outlet id across teams
Selling status	Active / slowing / dormant from weeks since last sale, scaled to each series' rhythm	Assumption	Order and van-load suggestions (no order for dormant SKUs)	Confirm delisted SKUs
Van load	P90 of next week's demand for active SKUs, P50 for slowing	Assumption: no van-load data	Suggested load per van	Van loads per rep per day (G17)
Forecast week	Wednesday to Tuesday, named by its closing Tuesday	Chosen so the last full week ends on 20 Oct	All weekly forecasts	-
Hijri calendar	Umm al-Qura dates for Ramadan, Eids, national days	Computed and checked against warehouse closures	Forecast features, Ramadan hours	24 months of history to learn seasonality (G14)
Site types	2100-14 and 2100-15 treated as cold chain	Inferred from the products handled	Site comparisons	Site register (G5)
External 3PL clients	Clients whose item codes match no Binzagr product	Inferred: 26 business units, 5 external	Revenue and cost by client	Client names and types (G6)

How to use this list

- Each answer replaces an assumption with an Actual figure; the dashboards and the simulation re-run with it, and the label on the screen changes from Simulated to Actual.
- Where Binzagr confirms our value, it stays as is and becomes Client-confirmed.
- The ranges shown are one-at-a-time effects with everything else at base. The combined Monte Carlo range for the labour saving is SAR 492K–806K.