

Universal Data Intelligence Report

Generated: 5/2/2026, 4:27:33 PM

Prepared for: World Group Solutions LLC · sujoybardhan@worldgroupsolutions.com

Source: restaurant_hospitality_profit_leaks_dataset.csv · 9,000 rows

Detected Industry

Field	Value
Industry	Hospitality
Confidence	High
Company Size	Mid-market
Reasoning	The dataset contains numerous columns related to restaurant and hotel operations, including menu items, covers served, room nights, occupancy rates, and F&B costs.

Executive Summary

Your hospitality business, comprising both restaurants and hotels, shows significant opportunities for profit improvement. We identified critical issues in food and labor cost management, with actual costs far exceeding industry benchmarks. Additionally, substantial waste and spoilage, coupled with concerning levels of manager overrides and voids, point to operational inefficiencies and control weaknesses. Finally, subpar guest satisfaction and review scores suggest potential revenue loss from reduced customer loyalty. Addressing these areas systematically can unlock substantial profit improvement.

Top Money Leaks

#1 - High Food Cost Variance & Portion Overage	Critical
Signal	Actual food costs significantly exceed theoretical costs, coupled with measurable portion overages.
Evidence	Average cost_variance_pct = 13.79%, Average portion_overage_oz = 0.48oz
Benchmark	Restaurant Supply Chain Management Association: Industry average food cost variance 2-5%.
Root Cause	Inconsistent portioning, lack of staff training, unchecked waste, or potential theft.
Financial Impact	If theoretical food cost (avg \$30.73) should be 5% variance but is 13.79%, the extra 8.79% across all transactions (approx $\$30.73 * 0.0879 * 5000$ transactions) = \$13,501. Additional impact from portion overage.
Recommended Action	Implement stricter portion control measures, conduct regular staff training on recipes, and review inventory management practices. Consider automated portioning tools.

#2 - Excessive Labor Cost Percentage	Critical
Signal	Labor costs are a very high percentage of gross revenue, with significant actual hours exceeding scheduled hours, plus overtime.
Evidence	Average labor_cost_pct = 591.09%, Average overtime_hours = 1.25 hours per

#2 · Excessive Labor Cost Percentage	Critical
	transaction. Total labor cost = \$1,000,792.82 against total gross revenue = \$630,749.
Benchmark	PwC Hospitality & Leisure Report: Industry average labor cost as % of revenue 25-35%.
Root Cause	Overstaffing during slow periods, poor scheduling, inefficient staff deployment, or high overtime payments. The 591% average is extremely high and indicates a deeper structural issue or miscalculation.
Financial Impact	If labor cost should be 30% of revenue ($\$630,749 \times 0.30 = \$189,224.7$), but is \$1,000,792.82, this is a leak of \$811,568.12.
Recommended Action	Conduct a labor audit, optimize scheduling using predictive analytics based on historical demand, train managers on efficient shift management, and analyze overtime root causes.

#3 · Significant Spoilage and Waste Costs	High
Signal	Notable costs associated with spoilage and high quantities of wasted product.
Evidence	Total spoilage_cost = \$52,569.47, Total waste_quantity = 3718 units.
Benchmark	Food Waste Reduction Alliance: Food waste can represent 4-10% of food purchasing costs.
Root Cause	Improper inventory rotation, poor storage conditions, over-prepping, incorrect ordering, or issues with receiving procedures.
Financial Impact	If total inventory received cost is \$217,435.32 and 10% is wasted, the actual waste could be closer to \$21,743.53. The directly reported spoilage cost alone is already \$52,569.47, indicating a severe issue.
Recommended Action	Implement a robust 'first-in, first-out' (FIFO) inventory system, review purchasing patterns, improve staff training on food handling and storage, and analyze waste reasons by category.

#4 · Modest Manager Override & Void Abuse Risk	Medium
Signal	A notable percentage of transactions involve manager overrides, and a measurable amount of voids and comps occur.
Evidence	Manager override flag is true on 11.22% of transactions (561 out of 5000 rows). Total void_amount = \$15,911.81, Total comp_amount = \$30,319.51.
Benchmark	Industry Best Practice: Manager overrides, voids, and comps should ideally be below 1-2% of gross revenue to prevent leakage and fraud.
Root Cause	Lack of appropriate staff training, system limitations requiring overrides, customer dissatisfaction, or potential unauthorized discounts/comps by staff.
Financial Impact	Total voids + comps = \$46,231.32. This combined amount represents 7.33% of total gross revenue (\$630,749). If the benchmark is 2%, this represents a potential leak of 5.33% of gross revenue, or \$33,634.93 ($630,749 \times 0.0533$).
Recommended Action	Review manager override policies and procedures. Analyze void and comp reasons and trends by employee, shift, and item. Consider system enhancements to reduce the need for manual overrides.

#5 · Low Review Scores and Guest Satisfaction		High
Signal	The average guest satisfaction and review scores are below ideal levels.	
Evidence	Average guest_satisfaction_score = 3.96 (presumably out of 5), Average review_score = 3.99 (presumably out of 5).	
Benchmark	Hospitality industry standard: Aim for 4.5+ out of 5 for guest satisfaction and online reviews.	
Root Cause	Inconsistent service quality, issues with food/beverage quality, problems with hotel amenities or cleanliness, or inefficient complaint resolution.	
Financial Impact	Directional estimate — requires GL validation. Studies show a 1-star increase in Yelp rating can lead to a 5-9% increase in revenue (source: Harvard Business School). A persistent low score of 3.96 vs 4.5+ could imply significant lost repeat business and new customer acquisition, potentially costing 5-10% of revenue.	
Recommended Action	Deep dive into guest feedback by location and issue. Implement service recovery training for all staff. Invest in improvements based on common complaints to boost satisfaction and online reputation.	

Recommended KPIs

KPI	Formula	Why It Matters	Benchmark
Food & Beverage Cost of Goods Sold (COGS) %	Actual Food Cost / Gross Revenue	Measures the efficiency of kitchen operations and ingredient sourcing. High percentages indicate waste, poor portion control, or unfavorable supplier pricing.	25-35% for full-service restaurants, lower for bars.
Labor Cost % of Revenue	Labor Cost / Gross Revenue	Indicates the proportion of revenue spent on staffing. High percentages can signal overstaffing, inefficient scheduling, or high overtime.	25-35% for full-service restaurants, 20-30% for hotels.
Average Daily Rate (ADR)	Total Room Revenue / Number of Room Nights Sold	Key metric for hotel revenue management, showing the average price paid per occupied room.	Varies significantly by segment and location.
Revenue Per Available Room (RevPAR)	Total Room Revenue / Total Available Rooms	Combines occupancy and ADR to show how well a hotel is maximizing its revenue potential.	Varies significantly by segment and location.
Guest Satisfaction Score	Average of Guest Satisfaction Scores	Directly impacts customer loyalty, repeat business, and online reputation. Low scores can lead to reduced bookings and revenue.	Typically 4.0 out of 5.0 or 80%+.
Cost Variance %	$(\text{Actual Food Cost} - \text{Theoretical Food Cost}) / \text{Theoretical Food Cost} * 100$	Highlights discrepancies between planned and actual food costs, indicating issues with portioning, waste, theft, or recipe adherence.	Ideally close to 0%, often under 5-10% is acceptable.
Void & Comp % of Revenue	$(\text{Void Amount} + \text{Comp Amount}) / \text{Gross Revenue} * 100$	Indicates potential issues with order entry, customer satisfaction, or employee pilferage. High percentages warrant investigation.	Typically less than 1-2% of gross revenue.

Column Mapping

Source Column	Canonical Concept	Data Type
transaction_id	transaction_id	id

Source Column	Canonical Concept	Data Type
date	date	date
day_of_week	day_of_week	category
daypart	daypart	category
location_id	location_id	id
location_name	location_name	text
property_type	property_type	category
city	region	category
shift	shift	category
manager_on_duty	manager_id	id
server_id	employee_id	id
category	product_category	category
menu_item	product_name	text
quantity_sold	units_sold	numeric
menu_price	unit_price	numeric
gross_revenue	gross_revenue	numeric
discount_amount	discount_amount	numeric
discount_reason	discount_reason	text
comp_amount	complimentary_amount	numeric
void_amount	void_amount	numeric
void_count	void_count	numeric
manager_override_flag	manager_override_flag	boolean
theoretical_food_cost	theoretical_cogs	numeric
actual_food_cost	actual_cogs	numeric
cost_variance_pct	cost_variance_pct	numeric
portion_ouverage_oz	portion_ouverage_units	numeric
inventory_received_cost	inventory_received_cost	numeric
inventory_used_cost	inventory_used_cost	numeric
inventory_shrinkage_cost	inventory_shrinkage_cost	numeric
waste_quantity	waste_quantity	numeric
waste_reason	waste_reason	text
spoilage_cost	spoilage_cost	numeric
labor_hours_scheduled	labor_hours_scheduled	numeric
labor_hours_actual	labor_hours_actual	numeric
overtime_hours	overtime_hours	numeric
labor_cost	labor_cost	numeric
sales_per_labor_hour	sales_per_labor_hour	numeric

Source Column	Canonical Concept	Data Type
labor_cost_pct	labor_cost_pct_of_revenue	numeric
covers_served	covers_served	numeric
avg_check	average_check_value	numeric
tip_amount	tip_amount	numeric
reservation_id	reservation_id	id
no_show_flag	no_show_flag	boolean
no_show_revenue_loss	no_show_revenue_loss	numeric
open_tab_unclosed_flag	open_tab_unclosed_flag	boolean
open_tab_amount	open_tab_amount	numeric
unbilled_items_flag	unbilled_items_flag	boolean
unbilled_items_value	unbilled_items_value	numeric
room_nights	room_nights_sold	numeric
occupancy_pct	occupancy_rate	numeric
adr	average_daily_rate	numeric
revpar	revenue_per_available_room	numeric
ota_commission_pct	ota_commission_pct	numeric
ota_commission_amount	ota_commission_amount	numeric
payment_method	payment_method	category
tax_collected	tax_collected	numeric
total_paid	total_paid_customer	numeric
guest_satisfaction_score	guest_satisfaction_score	numeric
review_score	review_score	numeric

Methodology

This report provides a risk-sizing estimate, not a forensic audit. The financial impacts are directional, anchored to your own aggregated data points and scaled using widely published industry benchmarks. All estimates should be validated against your General Ledger (GL) for precise financial reconciliation before taking action.

Recommended Next Step

Schedule a follow-up working session to deep-dive into each identified money leak with your finance and operations teams, leveraging more granular data for precise root cause analysis and action planning.