

Menu Management KPIs and Data Sources for FohBoh AI

FohBoh empowers restaurant operators with real-time insights into menu performance, profitability, and customer preferences. Here's a comprehensive list of Menu Management KPIs and the data sources required to provide actionable responses.

Menu Management KPIs

1. Top-Selling Menu Items

- **What it shows:** Item Name, Units Sold, Revenue.
- **Source:** POS system (sales transaction data, menu item IDs).
- **Data Required:** Number of items sold, item names, and associated revenue.

2. Least Profitable Menu Items

- **What it shows:** Item Name, Profit Margin, Contribution Margin.
- **Source:** POS system (sales data) and recipe management system (food cost data).
- **Data Required:** Sales volume, revenue per item, cost per item.

3. Contribution Margin per Menu Item

- **What it shows:** Gross profit generated per item.
- **Source:** POS system and inventory/recipe management system.
- **Data Required:** Food cost per item, selling price, sales volume.

4. Food Cost Percentage per Item

- **What it shows:** Name, Food Cost %, Cost of Ingredients, Selling Price.
- **Source:** Inventory/recipe management system and POS system.
- **Data Required:** Food cost per item, selling price.

5. Menu Item Popularity vs. Profitability Matrix

- **What it shows:** Highlights items by popularity (sales volume) and profitability (contribution margin).
- **Source:** POS system, inventory/recipe management system.
- **Data Required:** Sales volume, food cost, selling price, contribution margin.

6. Seasonal Item Performance

- **What it shows:** Item Name, Units Sold, Revenue and profitability of seasonal or limited-time items.
- **Source:** POS system.
- **Data Required:** Sales volume and revenue for items tagged as seasonal or promotional.

7. Customer Pairing Trends

- **What it shows:** Commonly paired items in transactions, Frequency of Pairing, Associated Revenue.
- **Source:** POS system (transaction-level data).
- **Data Required:** Items purchased together, sales frequency.

8. Item Void and Comp Report

- **What it shows:** Most frequently voided or comped items.
- **Source:** POS system (void and comp data).
- **Data Required:** Void/comp reasons, affected menu items, time and shift details.

9. Average Check Impact by Item

- **What it shows:** Contribution of specific items to the average check size.
- **Source:** POS system.
- **Data Required:** Revenue per check, items in each transaction, total guest count.

10. Menu P-Mix Analysis (Sales Ratio per Item)

- **What it shows:** Item Name, Sales Ratio (% of Total Sales) (# of specific menu items sold and % relative to total menu items sold) , Contribution Margin.
- **Source:** POS system.
- **Data Required:** Total sales, item-specific sales data.

11. Dish-Level Waste Metrics

- **What it shows:** Waste generated by specific items.
- **Source:** Inventory management system, kitchen waste tracking logs.
- **Data Required:** Over-prepped/unused portions, waste costs, item-level usage data.

12. COGS (Cost of Goods Sold) by Category

- **What it shows:** Total food costs by menu categories (e.g., appetizers, mains) - Category Name, Total Food Cost, Sales, Profit Margin.
- **Source:** Inventory management system.
- **Data Required:** Cost of ingredients, total food sales, item categorization.

13. Inventory Depletion by Menu Item

- **What it shows:** Ingredient usage rates for menu items.
- **Source:** Inventory management system.
- **Data Required:** Usage rates, sales volume, stock levels by ingredient.

14. Customer Feedback Trends by Item

- **What it shows:** Item Name, Feedback Score, Positive/Negative Mentions.
- **Source:** Guest feedback platform, online review aggregation tools.
- **Data Required:** Item-specific mentions, ratings, and sentiment analysis.

15. Daily Specials Performance

- **What it shows:** Special Name, Sales, Profit Margin, Sales Rank.
- **Source:** POS system (tagged daily specials data).
- **Data Required:** Sales volume, revenue, and profitability for specials.

16. Upselling Success Rates

- **What it shows:** Frequency of successful upsells, Upsell Item, Number Sold, Revenue Contribution.
- **Source:** POS system.
- **Data Required:** Add-ons, upsell item sales volume.

17. Menu Revision Tracker

- **What it shows:** Performance impact of menu changes.
- **Source:** POS system (historical sales data).
- **Data Required:** Pre- and post-revision performance data.

18. Time-of-Day Sales Trends

- **What it shows:** Item Name, Sales Volume, Revenue by Time Slot, Item performance by daypart (breakfast, lunch, dinner).
- **Source:** POS system (timestamped sales data).
- **Data Required:** Item sales volume and revenue by daypart.

19. Allergen-Free and Dietary Item Sales

- **What it shows:** Sales of items catering to dietary needs.
- **Source:** POS system (tagged menu data).
- **Data Required:** Sales volume for allergen-free, vegan, or other tagged items.

20. ROI on Menu Promotions

- **What it shows:** Revenue generated vs. cost of promotions, Promotion Name, Revenue, ROI %.
- **Source:** POS system (promotion sales), marketing platform (promotion costs).
- **Data Required:** Revenue from promotions, costs (e.g., discounts, ad spend).

Primary Data Sources

1. **POS System:** Sales, transactions, voids, comps, and check details.
2. **Inventory/Recipe Management System:** Food costs, ingredient usage, and waste tracking.
3. **Guest Feedback Platforms:** Customer sentiment tied to menu items.
4. **Marketing Platforms:** Promotion costs and performance metrics.

Menu Source Data Imported from the POS

- **These Data Can Be Imported from POS:**
 - Sales data, menu items, pricing, modifiers, timestamps, and transactions.
 - Limited profitability data (gross revenue but not COGS or contribution margins).
 - Pairing trends, daily specials, and time-of-day performance.
- **What Requires External Inputs – CSV or direct API integration:**
 - Food cost data for profitability metrics (inventory/recipe management system).
 - Waste data (waste tracking systems).
 - Customer feedback data (guest feedback platforms like Yelp or OpenTable).
 - Marketing ROI (promotion costs from marketing platforms).

By aggregating these data points through FohBoh LLM, restaurant operators gain unparalleled visibility into menu performance, enabling smarter, faster decisions that drive profitability and enhance customer satisfaction.

Menu Management Section Value to Operators

- **Value to Operators:**
 - Operators spend significant time analyzing menu performance. Centralizing this in an intuitive dashboard saves time and provides actionable insights in real-time.
 - **Automated Insights:** Instead of manually combining data from POS and inventory systems, FohBoh can automate this, allowing operators to focus on decisions rather than data wrangling.
 - **Real-Time Adjustments:** The ability to dynamically assess profitability and demand can inform daily operations (e.g., adjusting specials based on stock).

- **POS Shortcomings:**
 - Most POS systems are transactional and lack advanced analysis or integration capabilities to provide holistic menu insights.
 - Without FohBoh, operators would need to manually compile reports from multiple systems, which is time-consuming and prone to errors.
- **Why FohBoh's LLM Adds Value:**
 - **Contextual Analysis:** FohBoh can provide prompts and recommendations, e.g., "Which low-performing items should I promote today?"
 - **Predictive Insights:** Using historical and real-time data, FohBoh can predict trends and suggest proactive actions, like optimizing pricing or upselling.

KPIs Grouped by Data Source Type

POS System

- 1. Top-Selling Menu Items**
 - Data: Number of items sold, item names, associated revenue.
- 2. Least Profitable Menu Items**
 - Data: Sales volume, revenue per item.
- 3. Contribution Margin per Menu Item**
 - Data: Selling price, sales volume.
- 4. Menu Item Popularity vs. Profitability Matrix**
 - Data: Sales volume, selling price.
- 5. Seasonal Item Performance**
 - Data: Sales volume and revenue for seasonal items.
- 6. Customer Pairing Trends**
 - Data: Items purchased together, sales frequency.
- 7. Item Void and Comp Report**
 - Data: Void/comp reasons, affected menu items, time and shift details.
- 8. Average Check Impact by Item**
 - Data: Revenue per check, items in each transaction.
- 9. Menu Mix Analysis (Sales Ratio per Item)**
 - Data: Total sales, item-specific sales data.
- 10. Daily Specials Performance**
 - Data: Sales volume, revenue, profitability for specials.
- 11. Upselling Success Rates**
 - Data: Add-ons, upsell item sales volume.
- 12. Menu Revision Tracker**
 - Data: Pre- and post-revision performance.
- 13. Time-of-Day Sales Trends**
 - Data: Timestamped sales data for item performance by daypart.
- 14. Allergen-Free and Dietary Item Sales**
 - Data: Sales volume for allergen-free, vegan, or tagged items.
- 11. ROI on Menu Promotions**
 - Data: Revenue from promotions, discounts, and ad spend.

Inventory/Recipe Management System

1. **Least Profitable Menu Items**
 - Data: Food cost per item.
2. **Contribution Margin per Menu Item**
 - Data: Food cost per item.
3. **Food Cost Percentage per Item**
 - Data: Food cost per item, selling price.
4. **Dish-Level Waste Metrics**
 - Data: Over-prepped/unused portions, waste costs.
5. **COGS (Cost of Goods Sold) by Category**
 - Data: Cost of ingredients, total food sales.
6. **Inventory Depletion by Menu Item**
 - Data: Usage rates, stock levels by ingredient.

Guest Feedback/Review Platforms

Customer Feedback Trends by Item

- Data: Item-specific mentions, ratings, sentiment analysis.

Marketing Platforms

ROI on Menu Promotions

- Data: Promotion costs and performance metrics.

Summary by Source Type

- **POS System:** 15 KPIs
- **Inventory/Recipe Management System:** 6 KPIs
- **Guest Feedback/Review Platforms:** 1 KPI
- **Marketing Platforms:** 1 KPI

This grouping highlights how POS systems serve as the primary data source for most KPIs, with inventory systems and external feedback platforms complementing the insights for more specific metrics.

**** For FohBoh LLM MVP, focus on the POS data.**

****For the MVP Demo, using dummy Data, we need sales, HR, inventory and menu data.**