

QUICKBOOKS ANALYTICS

Power BI Dashboard — KPI Documentation

Advanced KPIs Beyond Native QuickBooks Reporting

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Data Source: QuickBooks Extract
Theme File: JPByDesign theme.json

KPI Quick Reference

KPI Name	Dashboard Page	Value (FY2024)	QB Gap
AR Collection Risk Score	AR Collection Risk	16 High-Risk	No native scoring
AP Payment Health Index	AP Payment Health	20.7% Late Rate	No category trending
Revenue Concentration Risk	Revenue Concentration	46.4% Top 5	No Pareto alerting
Customer Churn Risk Index	Customer Churn Risk	5 High-Risk	No churn prediction
Duplicate Bill Detection	AP Anomaly Detection	32 Flags (3.3%)	No dup detection

Section 1: KPI Definitions, Purpose & Calculations

This section details each KPI included in the dashboard, explaining the business purpose, why QuickBooks does not provide it natively, the calculation formula, and the exact fields used from the source data.

KPI 1 — AR Collection Risk Score

Dashboard Page	AR Collection Risk
QB Gap	QuickBooks provides AR aging buckets (0–30, 31–60, 61–90, 90+ days) but does NOT compute a composite risk score, rank customers by collection urgency, or weight multiple risk factors together.

Description

The AR Collection Risk Score is a custom composite metric that evaluates each open or historically late invoice by weighting how long it is overdue against the customer’s historical payment behavior. It produces a normalized score that classifies each invoice as Low, Medium, or High risk, enabling the collections team to prioritize outreach and allocate follow-up resources efficiently.

Business Purpose

- Identifies which invoices are most at risk of non-payment before they become write-offs
- Enables proactive collections by surfacing High-risk accounts before they age further
- Reduces Days Sales Outstanding (DSO) by concentrating effort on highest-leverage accounts
- Provides an at-a-glance risk dashboard that QuickBooks’s standard AR aging report cannot deliver
- Supports credit risk policy decisions by quantifying customer payment reliability over time

Calculation Formula

Risk Score = (DaysOverdue × 0.6) + (AvgPayDays / TermsDays × 0.4)			
Classification:	High Risk	: Score > 50	Medium Risk: Score 20–50
	Low Risk	:	Score < 20

Fields Used

Field Name	Source Sheet	Notes
Invoice ID	Accounts Receivable	Primary key
Customer	Accounts Receivable	Customer name for display
Invoice Date	Accounts Receivable	Transaction date
Due Date	Accounts Receivable	Payment deadline
Balance Due (\$)	Accounts Receivable	Remaining unpaid amount
Days Outstanding	Accounts Receivable	Age of invoice in days
Payment Status	Accounts Receivable	Paid / Partial / Open
Late?	Accounts Receivable	Yes/No flag from QB
Risk Score	Accounts Receivable	Pre-calculated in dataset; computed via DAX in PBI
Segment	Accounts Receivable	Enterprise / Mid-Market / SMB for segmentation

KPI 2 — AP Payment Health Index

Dashboard Page	AP Payment Health
QB Gap	QuickBooks shows bill-by-bill status (paid/unpaid/overdue) but does NOT aggregate late payment rates by vendor category, trend over time, or generate a category-level health score.

Description

The AP Payment Health Index tracks what percentage of bills are paid after their due date, broken down by vendor category and trended over time. This KPI surfaces systemic AP process failures at the category level — for example, identifying that Logistics vendors are consistently paid late due to invoice routing delays, or that Labor bills spike in late payment during certain quarters.

Business Purpose

- Identifies which vendor categories suffer from late payments, risking vendor relationship damage or penalty fees
- Supports cash flow planning by highlighting which payment categories are behind schedule
- Enables AP process improvement by pinpointing operational bottlenecks in bill processing
- Reduces late payment penalties and preserves early-pay discount opportunities
- Provides vendor relationship risk metrics not available in standard QuickBooks AP reports

Calculation Formula

Late Payment Rate = COUNT(Bills WHERE Paid Late? = Yes) / COUNT(All Bills)

Fields Used

Field Name	Source Sheet	Notes
Bill ID	Accounts Payable – Bills	Unique bill identifier
Vendor	Accounts Payable – Bills	Vendor name for grouping
Vendor Category	Accounts Payable – Bills	Materials, Labor, Logistics, etc.
Bill Date	Accounts Payable – Bills	Invoice receipt date
Due Date	Accounts Payable – Bills	Payment deadline per terms
Amount Paid (\$)	Accounts Payable – Bills	Confirmed payment amount
Pay Date	Accounts Payable – Bills	Actual payment date
Paid Late?	Accounts Payable – Bills	Yes/No: PayDate > DueDate
Days to Pay	Accounts Payable – Bills	PayDate – BillDate
Terms	Accounts Payable – Bills	Net 30, Net 15, etc.
Anomaly Flag	Accounts Payable – Bills	Flags potential duplicates

KPI 3 — Revenue Concentration Risk

Dashboard Page	Revenue Concentration
QB Gap	QuickBooks can generate revenue by customer but does NOT compute concentration percentages, Pareto thresholds, or alert when top customers exceed business-risk benchmarks (e.g., top 5 > 60% of revenue).

Description

Revenue Concentration Risk quantifies the degree to which total company revenue is dependent on a small number of customers. Based on the Pareto principle (80/20 rule), this KPI calculates what share of total revenue comes from the top N customers and benchmarks that share against industry risk thresholds. High concentration signals business fragility — the loss of one key customer can have outsized impact on the P&L.

Business Purpose

- Identifies single-customer dependency risk that could destabilize the business if a key account churns
- Supports strategic decisions about customer diversification, pricing, and sales investment
- Alerts management when concentration exceeds the 60% threshold for top-5 customers
- Provides a Pareto waterfall view of revenue distribution not available in QuickBooks
- Informs contract renewal prioritization and customer retention investment

Calculation Formula

```
Revenue % for top 5 Customers = SUM(Revenue for Top 5 Customers) / SUM(Total Revenue)
Top 5 Customer Revenue % to Benchmark = CASE
    WHEN Revenue % for top 5 Customers >= Reverse Benchmark Percent Value (60%)
        THEN Highly Concerning
    WHEN Revenue % for top 5 Customers >= Reverse Benchmark Percent Value (60%) * 2/3
        Then Caution
    Otherwise Good
```

Fields Used

Field Name	Source Sheet	Notes
Customer ID	Customer Master	Primary key
Customer Name	Customer Master	Display name
Segment	Customer Master	Enterprise / Mid-Market / SMB
Region	Customer Master	Region of Customer
LTV Score	Customer Master	<u>L</u> ifetime <u>V</u> alue Score of Customer
Churn Risk	Customer Master	Likelihood customer will discontinue
Date	Calendar	Date (as related to Invoice Date)
Customer Count	Customer Master	Number of customers
Invoice Total (\$)	Invoices – Sales Transactions	Sales dollars

KPI 4 — Customer Churn Risk Index

Dashboard Page	Customer Churn Risk
QB Gap	QuickBooks has no churn prediction, customer engagement scoring, or at-risk flagging. It cannot identify customers who are showing early warning signs of disengagement based on payment behavior and invoice frequency trends.

Description

The Customer Churn Risk Index classifies each active customer as Low, Medium, or High churn risk based on a combination of late payment rate (indicating financial stress or dissatisfaction) and implicit engagement signals derived from invoice frequency patterns. High-risk customers are those with late pay rates above 25% and potentially declining order volumes.

Business Purpose

- Proactively identifies customers likely to leave before churn actually occurs
- Helps account management focus retention efforts on highest-value at-risk accounts
- Quantifies revenue at risk from potential churned accounts (\$9.9M for High-risk group)
- Supports customer success strategy by differentiating between financially stressed vs. disengaged customers
- Complements CRM data not available within QuickBooks

Calculation Formula

```
Risk Score Number:
  (Days Outstanding where Balance Due > 0) * 60%
  + (Avg Pay Days / Term Days) * 40%
Risk Score: CASE
  WHEN Risk Score Number > 50 THEN High
  WHEN Risk Score Number >= 20 THEN Medium
  Otherwise Low
```

Fields Used

Field Name	Source Sheet	Notes
Customer Name	Customer Master	Display name
Segment	Customer Master	Segment classification
Payment Terms	Customer Master	Net 30, Net 45, etc.
Late Pay Rate	Customer Master	Proportion of late invoices (pre-calc)
Avg Pay Days	Customer Master	Average days to pay
LTV Score	Customer Master	Lifetime value score
Churn Risk	Customer Master	Pre-labeled: Low / Med / High
Active?	Customer Master	Yes/No active status
Revenue	Invoices	Total revenue

KPI 5 — Duplicate Bill Detection

Dashboard Page	AP Anomaly Detection
QB Gap	QuickBooks does not detect potential duplicate bills, alert on anomalous payment patterns, or perform self-join logic across the Bills table to identify near-duplicate entries by vendor/amount/date proximity.

Description

Duplicate Bill Detection identifies bills that share the same vendor, a near-identical amount (within $\pm \$1$), and a bill date within ± 3 days of another bill from that vendor. These conditions strongly indicate that the same vendor invoice was entered into QuickBooks twice, creating the risk of a double payment if both bills are processed.

Business Purpose

- Prevents double payments to vendors that would directly impact cash and require difficult recovery
- Reduces AP error rates and strengthens internal controls
- Identifies data entry quality issues in the bill intake process
- Provides audit-ready documentation of anomalies for finance team review
- Enables process improvements in vendor invoice receipt and verification workflows

Calculation Formula

```
Duplicate Flag:
Across Accounts Payable Table
IF Same Vendor
  AND Bill Amount $ > = Bill Amount $ - 1000
  AND Bill Amount $ < = Bill Amount $ + 1000
  AND Bill Date is in the same Month and Year
THEN "Potential Duplicate"
Else "Unique"
```

Fields Used

Field Name	Source Sheet	Notes
Bill ID	Accounts Payable – Bills	Self-join key
Vendor	Accounts Payable – Bills	Vendor match criterion
Bill Date	Accounts Payable – Bills	Date proximity criterion (same Year/Month)
Bill Amount (\$)	Accounts Payable – Bills	Amount match criterion ($\pm \$1k$)
Duplicate Flag	Accounts Payable – Bills	Calculated
Year	Calendar	Year dimension for time filtering
Month	Calendar	
Balance Due	Accounts Payable – Bills	Used in supporting visuals

KPI 6 — Vendor Spend Concentration (Supporting)

Dashboard Page	Vendor Spend
QB Gap	QuickBooks reports vendor spend individually but does NOT compute concentration ratios, flag single-source supply chain risk, or benchmark against industry thresholds.

Description

Vendor Spend Concentration measures what percentage of total AP spend flows through the top 3 vendors. High concentration means supply chain disruption from one vendor could have outsized operational and financial impact.

Calculation Formula

Vendor Top 5 Share % = SUM(Top 5 Vendor Bill Amounts) / SUM(Bill Amounts)

Fields Used

- Vendor ID, Vendor Name, Category — Vendor Master
- Bill Sums — Accounts Payable
- Late Pay Rate, Rating — Vendor Master
- Year – Calendar

Section 2: Dashboard Layout Details

This section documents the layout structure, design system, navigation architecture, and header/footer specifications for the Power BI dashboard model.

2.1 Overall Layout Structure

Zone	Description
Header (top)	Fixed 72px height. Left: Company logo (SVG). Center: Report title + page title (smaller). Right: Last refreshed date/time, Purpose tooltip.
Left Sidebar	Fixed 220px width, spans from header to footer. Houses the navigation menu organized by section. Active page is highlighted with a Forest Green left accent bar.
Main Canvas	24px padding on all sides. Holds KPI cards, charts, and data tables.
Footer (bottom)	Fixed 68px height. Left: © icon + Year + Company name. Center: 3 lines of report metadata. Right: Small logo.

2.2 Header Specifications

- Height: 72px fixed
- Background: Linear gradient from Forest Green dark (#1B4332) to panel (#1A2E22)
- Bottom border: 2px solid Forest Green (#2D6A4F)
- Left zone: Company SVG logo
- Center zone: Report title & sub-title
- Right zone: Last Refreshed label + date/time in monospace font, Information Icon (i in circle) that activates Purpose tooltip

2.3 Footer Specifications

- Top border: 1px solid Forest Green
- Left column (1/3 width):
 - © 2026 JPByDesign. All rights reserved.
 - Confidential — For Internal Use Only
- Center column (1/3 width):
 - Line 1: Data Source: QuickBooks Extract
 - Line 2: Created by JPByDesign | web link
 - Line 3: Version + date
- Right column (1/3 width): Small logo image

2.4 Navigation Menu Structure

Section	Page Name	Content Summary
Overview	Executive Summary	8 KPI cards, revenue trend bar, risk overview
KPI Pages	AR Collection Risk	Risk score KPIs, high-risk table, formula panel
KPI Pages	AP Payment Health	Late rate by category, bar chart, drill table
KPI Pages	Revenue Concentration	Pareto bar chart, donut by segment
KPI Pages	Customer Churn Risk	Churn KPIs + full customer detail table
KPI Pages	Duplicate Bill Detect	Anomaly count KPIs + flagged bill table
KPI Pages	Vendor Spend	Concentration bar chart + vendor master table
Data Governance	Data Dictionary Metadata	DD – definitions/calculations by field MD – Sources & Code

Section 3: Page Details & Visual Inventory

3.1 Executive Summary Page

- Purpose: Single-screen overview of all 6 KPI areas
- Visuals: 6 KPI cards (3×2 grid), Revenue Trend bar chart, KPI Risk overview bar chart
- KPI Cards: Each card has a colored top accent bar (green=normal, amber=warning, red=danger), title, metric value callout, and reference label(s)
- Data sources: All 5 primary sheets (AR, AP, Customer Master, Invoices, Vendor Master)

3.2 AR Collection Risk Page

- Purpose: Deep dive into receivables collection risk scoring
- Visuals: 3 KPI summary cards, Alert strip (16 high-risk invoices), 2-column panel layout
- Left panel: High-risk AR table (Invoice Id, customer, segment, balance, days outstanding, risk score number and risk score)
- Right panel: DAX formula display, risk distribution bar chart by segment, QB gap explanation
- Drill-through modal: from High-Risk AR Invoices drill-through to Invoice Details

3.3 AP Payment Health Page

- Purpose: Vendor category payment health trending
- Visuals: 3 KPI summary cards, 2-column panel layout
- Left panel: Horizontal bar chart of late pay % by all vendor categories
- Right panel: Drill-through table with raw counts and health badges per category

3.4 Revenue Concentration Page

- Purpose: Pareto-style analysis of customer revenue concentration
- Visuals: Alert strip, 3 KPI cards, 3-column panel layout
- Left panel: Horizontal Pareto bar chart of customers by revenue
- Middle panel: Customer breakdown selector – Segment, Region, LTV Score or Churn Risk
- Right panel: Donut chart showing revenue split by customer breakdown selector across customers

3.5 Customer Churn Risk Page

- Purpose: At-risk customer identification with revenue quantification
- Visuals: Full detail table and Churn risk gage by Revenue/Late Pay Rate Average/Customer Count
- Table: All customers with segment, revenue, late pay rate, LTV, churn risk badge

3.6 Duplicate Bill Detection Page

- Purpose: AP anomaly audit trail for potential duplicate payments
- Visuals: 2 KPI cards, flagged bill detail table, Year/Month filter, AP Details Drill-through button
- Table: Flagged bills with vendor, Bill Amounts, Bill Counts, Amount Paid, Balance Due

3.7 Vendor Spend Page

- Purpose: Supply chain concentration risk analysis
- Visuals: 3 KPI cards, Vendor Details table
- Table: Vendor Name, Category Late Pay Rate, Rating, Revenue by Calendar period

3.8 Drill-Through Pages

- Invoice Details: transaction lines from Invoices – Sales Transactions
- Customer Detail: Full Customer Master with year-by-year revenue columns
- Accounts Payable Detail: transaction lines from Accounts Payable transactions
- All drill-through pages accessible via drill-through modals from KPI tables

3.9 Tooltips & Other hidden pages

- Purpose Tooltip: Description of purpose of report
- Vendor Details Tooltip: highlighting Vendor details
- Data Dictionary | Metadata
 - Data Dictionary – automated listing of each field, table, definitions, calculations
 - Metadata – automated listing of each source table, with its' DAX or Power Query code, source (file/folder/database) and location
- License and Source information – Description of the files, resources, artifacts, etc... used to create report
- Data Quality – Quality confidence scoring
- Copy DQ Strings – automated scripts to update structure to calculate Data Quality accurately
- Page Template – Master page template used to create new pages