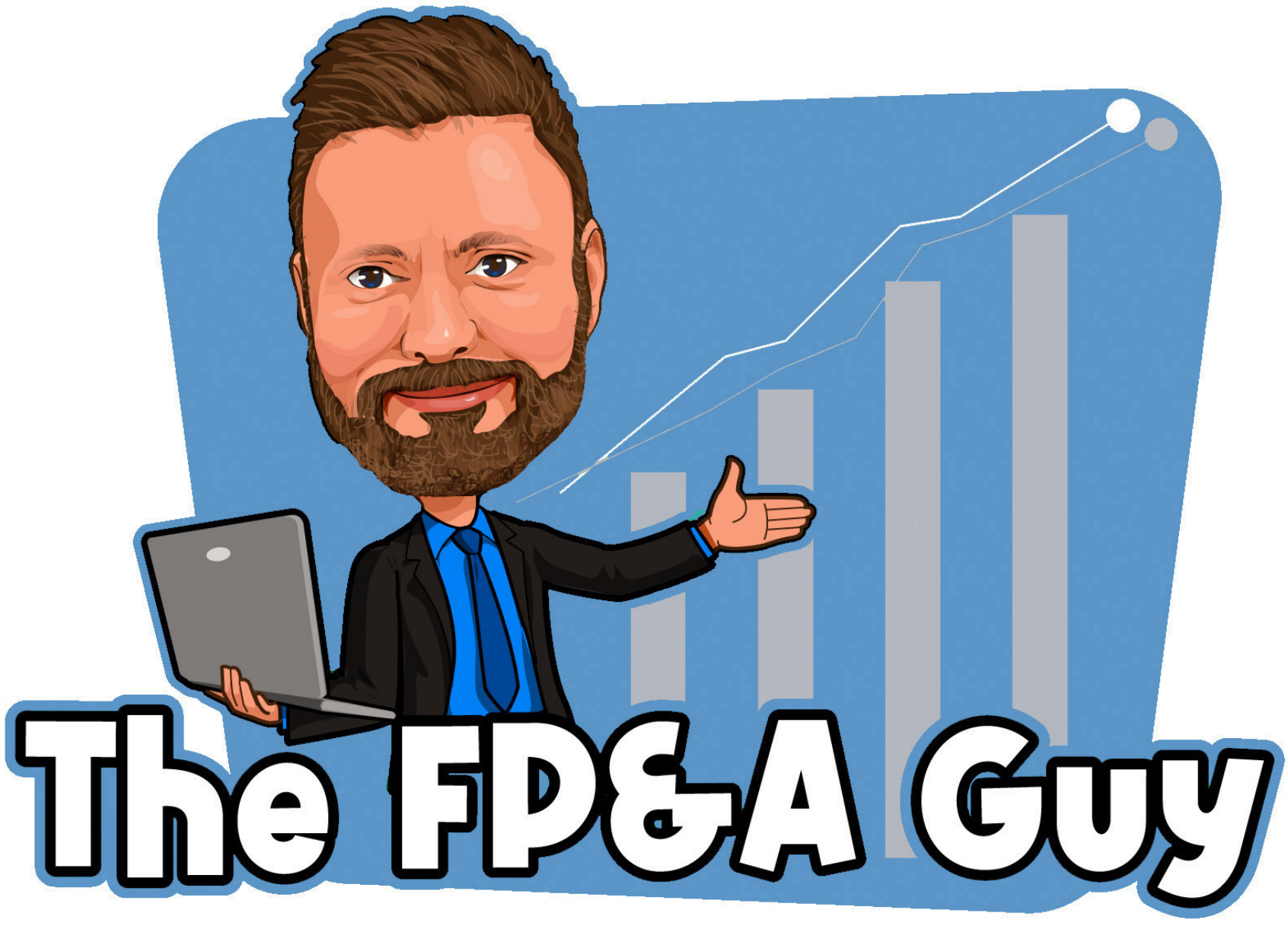
Financial Ratios & Metrics General & Industry Specific



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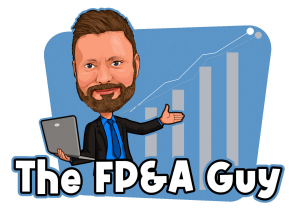
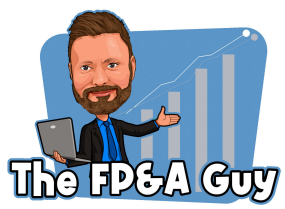


Financial Ratio Analysis

Ratio Analysis – Financial ratios are a way to analyze a business and to easily compare and benchmark them against other businesses in an industry.

Some common types of financial ratios include:

- Profitability Ratios
- Liquidity Ratios
- Efficiency Ratios
- Coverage Ratios
- Market Value Ratios



Profitability Ratios

Common Profitability Ratios:

Gross Profit Margin = (Revenue - COGS)/Revenue

Operating Margin = (Revenue - Operating Expenses)/Revenue

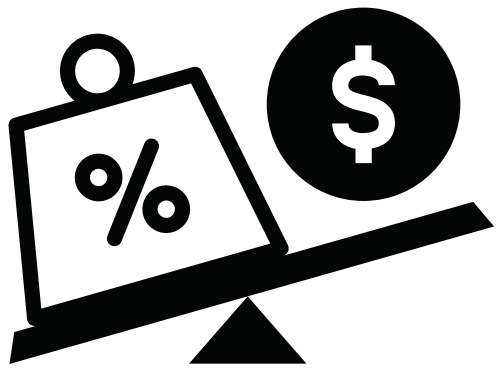
Net Profit Margin = (Revenue - All Expenses)/Revenue

Return on Assets = Net Income/Assets

Return on Equity = Net Income/Equity

Return on Sales = Operating Profit/Net Sales

Return on Investment = (Return on Investment/Cost of Investment) *100%



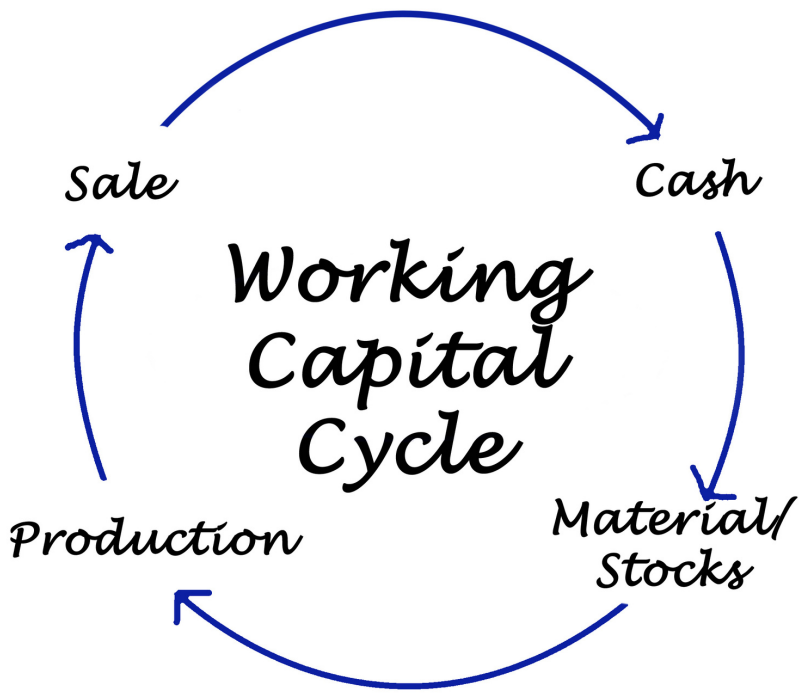
Liquidity Ratios

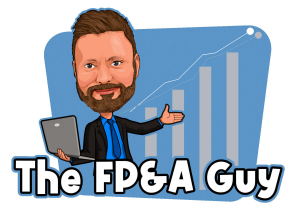
Common Liquidity Ratios:

Current Ratio = Current Assets/Current Liabilities

Quick Ratio (Current Assets - Inventory)/Current Liabilities

Working Capital = (Current Assets - Current Liabilities)





Efficiency Ratios

Common Operational Measures/(Efficiency Ratios):

CAGR = [(Current Year Sales/Period 1 Sales)^1/# of Periods] - 1

Accounts Receivable (A/R) Turnover Ratio = Credit Sales/Average Accounts Receivable

Accounts Payable (A/P) Turnover Ratio = Net Credit Purchases/Average Accounts Payable

Inventory Turnover Ratio = COGS/Average Inventory

Coverage Ratios

Common Coverage Ratios:

Interest Coverage Ratio = Earnings Before Interest and Taxes/Interest Expense

Debt service Coverage Ratio = Net Operating Income/Debt Service

Cash Coverage Ratio = (Earnings Before Interest and Taxes + Non-Cash Expenses)/Interest Expense

Asset Coverage Ratio = ((Total Assets - Intangible Assets) - (Current LIabilities - Short-term Portion of Long Term Debt))/Total Debt

EBITDA-to-interest Coverage Ratio = EBITDA/Interest Expense

The FP&A Guy

Common Market Value Ratios

Common Market Value Ratios:

Price Earnings (P/E) Ratio = Market Price Per Share/Earnings Per Share

Book Value Per Share = Shareholder Equity/# of Shares

Earnings Per Share = Business Earnings/# of Shares

Market Value Per Share = Total Market Value/# of Shares

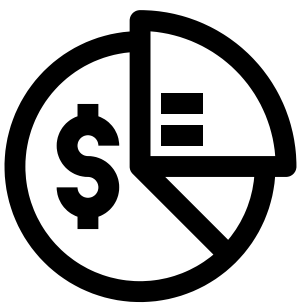
Dividend Yield = Total Dividend Payout/Market Price of Stock

The FP&A Guy

Common Financial Metrics (P&L)

- **Gross Profit Margin** - Margin. after subtracting the cost of goods sold from the revenue.
  - (Revenue - Cost of Goods Solds)/Revenue
- **Net Profit Margin** - Margin after subtracting all expenses from revenue.
  - (Revenue - Expenses)/Revenue
- **Operating Profit Margin** - Margin after subtracting only operating expenses from revenue.
  - (Revenue - Operating Expenses)/Revenue

- **Earnings Before Interest Taxes Depreciation & Amortization (EBITDA) Margin -** EBITDA is a measure used to value a company that excludes interest, taxes, depreciation, and amortization from the calculation.
  - (Revenue - Expenses (excluding Interest, taxes, depreciation & amortization))/Revenue
- **Revenue Growth** - Measures how quickly revenue has grown from one period to the next.
  - (Ending Revenue/Begining Revenue) - 1
- **S&M Expense Ratio** - Sales & Marketing expenses as a percentage of revenue.
  - S&M Expenses/Revenue



- **R&D Expense Ratio** - Research & Development expenses as a percentage of revenue.
  - R&D Expenses/Revenue
- **G&A Expense Ratio** - General & Administrative expenses as a percentage of revenue.
  - G&A Expenses/Revenue

Common Financial Metrics (B/S)

- **Net Working Capital**- Margin. after subtracting the cost of goods sold from the revenue.
  - Current Assets - Current Liabilities
- **Current Ratio**- Measures the ability to meet short-term funding needs using current assets
  - Current Assets/Current Liabilities
- **Quick Ratio** - Measures the ability to meet short-term funding needs using must liquid assets which excludes inventory.
  - (Current Assets - Inventories)/Current Liabilities
- **Debt to Equity Ratio** - Measures the amount of debt the company has as a percentage of overall equity.
  - Total Liabilities/Shareholder's Equity

- **Debt to Asset Ratio**- Measures the amount of debt a company has when compared to assets. Measures how much of the assets have been funded through debt.
  - Total Liabilities/Total Assets
- **Days Sales Outstanding**- Measures time it takes to convert sales to cash.
  - (Receivables/Revenue) * 365

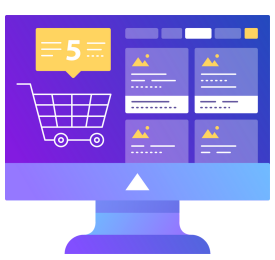
- **Days Inventory Outstanding** - Measures how long a company holds inventory.
  - (Inventory/COGS) * 365
- **Days Payable Outstanding** - Measures how long a company takes to pay its creditors.
  - (Accounts Payable/COGS) * 365

20 Critical Balance Sheet Ratios Investors Must Analyze - https://www.oldschoolvalue.com

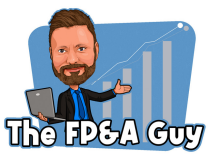
Retail Industry Metrics

- **Sales Per Square Foot -** Helps determine how efficient you are at using store space.
    - Net Sales/Store Square Footage
- **Sales Per Employee -** Sales generated per employee, helps with staffing stores.
    - Net Sales/# of Employees
- **Average Order Value -** Average amount a customer spends per order/transaction.
    - Total Revenue/# of Orders

- **Customer Retention -** Helps in understanding the number of customers kept during a period.
    - ((End of Period Customers - New Customers During Period)/Customers at start of Period)*100
- **Conversion Rate -** Helps you understand how many people who visited your store/website became a customer
    - (# of Sales/# of vVsitors)*100
- **Inventory Turnover -** Number of times you turned over your inventory during a time period.
    - Cost of Goods Sold/Average Inventory Cost



- **Gross Margin Return on Investment** - This tells you the profitability of your inventory
    - Gross Profit/Average Inventory Cost
- **Shrinkage** - Inventory lost due to theft, damage, or administrative errors.
    - Ending Inventory Value - Actual Inventory Value



Service Industry Metrics

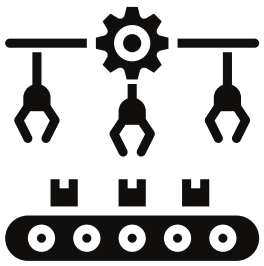
- **Billable Hours Leverage -** Measures what percentage of hours a partner bills of the total hours worked.
  - Total Billed Hours/Partner Billed Hours
- **Billable Headcount -** Measures what percentage of headcount is billable headcount vs. support headcount
  - # of Billable Employees/# of non-Billable Employees
- **Net Fee Revenue Per Partner -** Measures the amount of revenue being generated by each partner in the firm.
  - Billable Hours Per Partner * Average Hourly Rate of Partners Team

- **Gross Profit Per Partner -** Measures the amount of Gross Profit each partner is bringing in across their portfolio of business
  - Revenue Per Parter - COGS Per Partner
- **Average Gross Bill Rate -** Measures the average billable rate across the entire organization.
  - $ of Billed Work/# of Hours to Produce the Work
- **Total Billable Hours -** This is the total number of billable hours for a time period.
  - Sum of All Hours Billed

- **Days Sales Outstanding -** Measures how long it takes to collect cash from your sales
  - (Net A/R/ Sum of 12-Nonths of Net Revenue)*Days in the Year
- **Leverage Ratio -** This metric is useful for service business that have debt.
  - Net Debt/TTM EBITDA

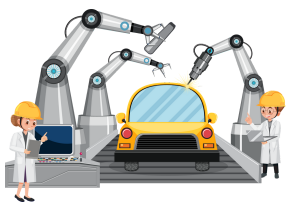
KPIs for service-based businesses (and formulas) - The Management Blog (beebole.com)

Manufacturing Industry Metrics



- **Overall Equipment Effectiveness -** Measures how effective your equipment is at producing usable product.
    - Quality*Availability*Performance
- **Throughput -** Measures how much a machine, factory, person is producing over time.
    - Units Produced/Time
- **Capacity Utilization -** Measures how much capacity you're producing from your equipment vs. how much your equipment can potentially produce.
    - (Actual Output/Potential Output) * 100
- **Yield -** This is a quality and performance KPI that measures how much of your product is usable.
    - Usable Units Product/Total Units Produced

- **Scrap -** Scrap is the material that is discarded or rejected ruing the manufacturing process.
    - Scrap/Total Product Run
- **Availability -** Measures the amount of time machines are working vs. the total time they should be working.
    - Uptime/(Total Time)

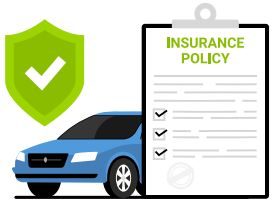


- **Customer Return Rate -** Measures what percentage of goods is returned by your customer and not caught during your quality check process
    - Goods Rejected/# of Goods Delivered
- **On-Time Delivery Rate -** Measures ability to deliver product to client on-time
    - # of Work Orders Delivered Ontime/Total Work Orders

Top 12 Manufacturing KPIs To Track Operational Excellence (gomingo.io)

Insurance Industry Metrics

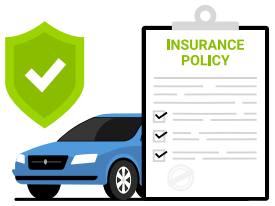
- **Revenue Per Policyholder -** Measures the average amount of revenue generated per policyholder
    - Total Revenue/# of Policyholders
- **Average Cost Per Claim -** The average amount paid out per claim filed by customers.
    - All Claim Costs/# of Claims
- **Return on Surplus -** Measures how much profit an insurance company can bring in relative to the revenue it generates from its policies.
    - After-Tax Income & Capital Gains/Total Assets
- **Loss Ratio -** Measures the amount paid out in policy claims vs the total amount earned from all premiums.
    - Total Policy Payouts/Total Revenue from Premiums
- **Expense Ratio -** The ratio of expenses excluding claim payouts vs total revenue earned from all premiums.
    - Expenses Excluding Loss Payouts/Total Revenue from Premiums
- **Renewal Rate -** Measures the number of customers who renew the policy after the initial policy period is up
    - Customers who renew policy/Total customers



- **Average Policy Size -** This is the average price or size of a policy during a given time period.
    - Revenue from all policies/# of Policies
- **Underwriting Speed -** A measurement of the time it takes to review a policy and make an underwriting decision
    - Days in underwriting of all policies/Policies Written

SaaS Metrics

- **Annual Recurring Revenue (ARR) -** ARR is the value of the recurring subscription revenue over the next twelve months.
    - (Starting Monthly Revenue + Changes in Revenue) * 12
- **CAC Payback -** CAC payback is the time it takes to pay back the cost of acquiring a customer and is usually calculated in months.
    - Marketing & Sales Expenses/(New recurring revenue * Gross Margin)
- **Net Retention Rate -** NRR is the percentage of revenue retained from existing customers over a period of time.
    - (MRR at start - (Downgardes+Churn)+(Upsells+Expansions))/MRR at Start
- **Gross Margin -** Gross margin is the revenue received minus the Cost of Goods Sold (COGS) related to the item.
    - (Revenue - Cost of Goods Sold)/Revenue



- **Rule of 40** - The rule of 40 is that a SaaS company's sum of growth and profit margin should exceed 40%.
    - Revenue Growth + Profit Margin
- **Customer Lifetime Value -** Customer lifetime value is the customer's worth over the relationship's lifetime.
    - Lifetime Value * Profit Margin

- **Burn Multiple -** The burn multiple measures efficiency and tracks how much revenue is generated for each dollar spent.
    - (Cash revenue - Cash Operating Expenses)/(New ARR+ Expansion ARR - Churned ARR)
- **Bookings -** Metric that tells the value of signed contracts with customers for a given period.
    - Sum of signed contracts during given period