Restaurant Technology Network

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# Payback Comparison Tool User Guide

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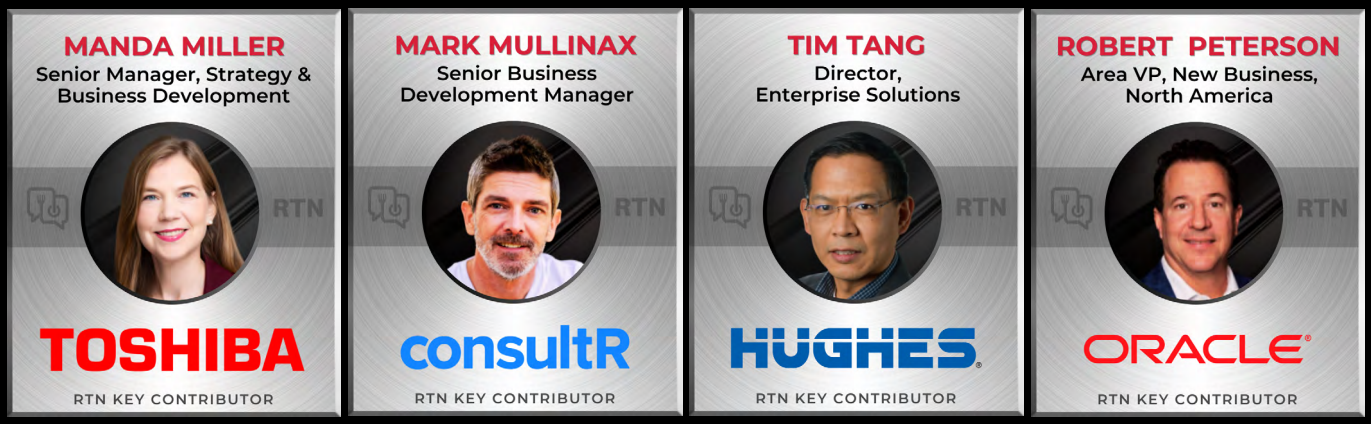
# Key Contributors To This Work




# RTN Staff

**ABBY LORDEN**
VP and Brand Director, *HT*
Co-Founder, RTN
973.607.1358
alorden@ensembleiq.com

**ANGELA DIFFLY**
Co-Founder, RTN
404.550.7789
angela@restauranttechnologynetwork.com

**SANDY ANGEL**
Senior Director, Technology & Information
American Hotel & Lodging Association
sangel@ahla.com

**ROBERT FIRPO-CAPPIELLO**
Editor in Chief, *HT*
917.208.7393
rfirpo-cappiello@ensembleiq.com

**ANNA WOLFE**
Senior Editor, *HT*
207.773.1154
awolfe@ensembleiq.com

**KATHERINE WARE**
Senior Account Executive, *HT* & RTN
785.424.7392
kware@ensembleiq.com

**NOELL DIMMIG**
Account Executive, *HT* & RTN
973.607.1370
ndimmig@ensembleiq.com

**MOLLY MCLOONE**
Brand Marketing Manager, *HT* & RTN
908.433.2796
mmcloone@ensembleiq.com

**TAMMY HANSON**
Membership Manager, RTN
314.570.4798
tammy@restauranttechnologynetwork.com

**CHRISTOPHER BARRY**
Strategic Director, Membership & Communications, EIQ
cbarry@ensembleiq.com

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## RTN Mission

The Restaurant Technology Network (RTN) is a membership community solely dedicated to the restaurant technology industry. Through access to valuable benefits and powerful connections, our members shape industry standards and share technical guidance to help restaurateurs run successful businesses and better serve their customers.

# Introduction

## Purpose of the Payback Comparison Tool

The Payback Comparison Tool is an analysis methodology to determine the payback period for an investment in a technology implementation project. The payback period is how long it will take to pay off the investment and is sometimes called the 'break even point'. The most significant advantage of the payback comparison tool is its simplicity. It's an easy way to compare several projects or project scenarios and then focus on the project or scenario that has the shortest payback time.

## Target Audience

This tool is most suitable for restaurant store operators looking to understand how long it will take them to recoup the costs of a technology implementation project given the benefits that the technology will offer. It is primarily a store-based analysis that can then be rolled-up to a higher level store count set.

## System Requirements

- Access to Google Sheets and Google Docs is required
- Google resources are typically downloadable onto desktop applications such as Microsoft Excel or Microsoft Word, but there could be a loss of functionality with download

# Getting Started

## Installation and Setup

- Links to the Payback Comparison Tool User Guide and the Payback Comparison Tool Google Sheet workbook are provided via the RTN member portal.
- Access the links and save a copy of the document and/or workbook to your personal Google Drive space.
- Please note that downloading and saving as a Microsoft Excel document may lead to minor loss in functionality.  Be sure to check the Excel file for any inconsistencies.
- It is advised to save a copy of the Payback Comparison Tool Google Sheet workbook and save the file for each of the projects being assessed.
- If at any point a saved copy loses functionality or formulas no longer work properly, simply download a new copy from the RTN member portal.

## User Access and Expectations

- As an RTN member, you receive first-rights access to all of our tools and technical documentation. Feel free to use it in your own development or share with your colleagues and customers.
- RTN Technical Documents are evolving and may require updates and edits over time. As you review the tools, if you see any areas that need to be updated, edited, or added to, please use the button to complete our feedback form. Once received the RTN team will review it with the tool's Key Contributors for consideration.
- The feedback form can be found here: **https://restauranttechnologynetwork.com/feedback**

# Navigating the Model

## Comparison Model Overview

**The model includes tabs organized by input and output.**

- Inputs are always highlighted in green.  Inputs includes information about
  - Stores
  - Average store annual unit volumes
  - Average store sales and costs
  - Project related sales, costs, and benefits.
- Outputs require very limited input, and almost all of the outputs are auto-generated via formulas from the input tabs.
  - Results, such as payback calculations and graphs
- Included in the model is a glossary tab.
  - You can also find notes within cells that allow for quick display of glossary definitions for an item.

## Comparison Model Structure

- **Inputs**
  - All input cells are highlighted in green and require manual input of information
  - Inputs tabs include:
    - Brand Attributes Input
    - Project Inputs
    - There are three inputs in the form of drop-down selections found on the top of the Deployment Tab.
- **Scenarios**
  - Model supports up to three scenarios for:
    - Brand Attributes
    - Store Attributes
    - Proposed Store Roll-out Schedule
    - Benefits of Solution
  - Scenarios can be used to model the following comparisons:
    - Store Tiers Comparison
    - Proposed Roll-Out and Benefits Comparison (i.e. Base case,

Optimistic Case, Pessimistic Case)
    - Proposed vs Actual (Roll-out, Benefits)

- **Outputs**
    - All output cells have no fill color and contain formulas.
    - Modifying an output cell may hinder the model from working properly.
        - It is important that you understand the formulas within the cells and any precedent and/or dependent cells before modification.
    - Output tabs include:
        - Deployment Views
        - Results Dashboard

- **Glossary of Terms**
    - The glossary of terms tabs lists all inputs and outputs, the locations, format, term definition, and helpful hints
    - Term definitions can also be found in cell notes
        - Designated by a black triangle in the top right corner of a cell
        - Hover your mouse pointer on the cell to see the cell note
        - Resize the cell note by dragging lower right corner of the note box

# User Interface Features

- Completely separate and clearly designated input tabs and cells
    - Less likely to make a modification to a formula by accident
    - Easily find and make changes to assumptions that drive the model results
    - Areas designated to clarify assumptions and/or write additional commentary that others can reference
- Completely separate and clearly designated output tabs and cells
    - Less likely to make a modification to a formula by accident
- Simple and consolidated layout
    - Easily print Results Dashboard tab of the model
    - Copy and paste Results Dashboard of the model into PowerPoint slides
    - Easily share tabs on your screen in virtual platforms
- Month by Month Deployment View of benefits and costs on the Deployment View tab
- Clearly defined scenario analysis options
- Results Dashboard Tab reiterates scenario and assumptions in consolidated sidebar and rolls-up the monthly view into an annual view
- Glossary of Terms and in-cell notes containing glossary definitions for quick access to term definitions

# Data Input

## Key Input Information

**Refer to the Glossary of Terms for information on input terminology.**

- The Brand Attributes Inputs tab will need inputs for:
  - Store Count
  - AUV (Annual Unit Volume) per Store
  - Length of Term (Months)
  - Monthly Store Averages of
    - Sales, Labor Cost, Food Cost and Other Operating Expenses
  - Whether or not the model will be used for Comparing Store Tiers (Reference Section 5.2 of this user guide)

- The Project Inputs tab will need inputs for:
  - All the costs (internal, external and enterprise) related to the technology project. Costs will be designated as up-front/one-time or recurring
    - Hardware
    - Services
    - Software
    - Support
    - Training
    - Vendor fees
    - Additional headcount or personnel
    - And all other costs related to the project not captured above
  - Proposed-Rollout plans by Month
    - The cells for the Month column are pre-filled based on Length of Term designation on the Brand Attributes Inputs tab
    - Be sure that Total Stores Deployed does not exceed the Store Count on the Brand Attributes Input tab
    - Make sure that the Total Stores Deployed column is summing the Stores Deployed correctly. Stores Deployed are the stores that are deployed in a specific month, while the Total Stores Deployed cumulatively sums the Stores Deployed column.

- When inputting the store roll-out scenarios, delete data not highlighted in “green”, and make sure “green” cells have input as this is feeding the Deployment tab

Estimated Benefits per Store

- Benefits are in the form of percentage increases (for sales) or decreases (for costs)
- Benefits percentage increases and decreases per store are on a per month basis

# Data Entry

**Refer to the Glossary Term tab for data entry formats.**

**Before entry, some preliminary calculations may be required for the following items:**

- Determination of current, pre-technology implementation average Annual Unit Volume on a per store basis and corresponding Store Count making up that Average
  - Have a clear understanding if you will be using the scenarios to test store tiers; if so, you’ll have to determine what scenario will be attributed to which tier, and keep that consistent across the Store Attributes scenarios on the Brand Attributes Input tab, and the Proposed Roll-out scenarios on the Project Inputs tab (Reference Section 5.2 of this user guide for more information)
- Determination of current, pre-technology implementation average sales and costs on a per store basis
- All project-related costs; External costs are normally supplied by the vendor, Internal and Enterprise costs will be a combination of assumptions supplied by internal calculations and external vendor
- Proposed Roll-out plans based on vendor and restaurant availability and estimated time required to roll-out a store with the technology
  - This will be used to choose a Length of Time for the analysis on the Brand Attributes Input tab and for the Proposed Roll-out Scenarios on the Project Inputs tab.Hardware}
- Estimated benefits of the project; this is usually supplied by the vendor, but additional scenarios are provided to pressure test vendor supplied assumptions

**Remember to utilize the designated commentary and notes areas to document any pre-work or preliminary calculations so that other users of the model can understand where the numbers came from.**

# Financial Analysis

## Step by Step Instructions

**Filling out the Brand Attributes Inputs tab:**

1. **Select the Brand Attributes Inputs tab**

2. **Based on information gathered in Section 4.2 of this user guide, proceed to fill out input cells on the Brand Attributes Inputs tab**

   - Consult Section 5.2 of this guide on how to set up Scenario Analysis for different types of comparisons; if comparing store tiers Choose Y in the drop-down for cell G8 on the Brand Attributes Inputs tab
   - The range of C17:E20 on the Brand Attributes Inputs tab may auto-calculate using the formula of AUV / 12. You can change this auto-calculation to be manual or enter a different formula.

3. **Add any commentary or assumptions for the project in the designated in the Additional Commentary and Assumptions area on the Brand Attributes Inputs tab**

**Filling out the Project Inputs tab:**

1. **Select the Project Inputs tab**

2. **Based on information gathered in Section 4.2 of this user guide regarding project-related cost; proceed to fill out input cells designated in green on the Project Inputs tab in the Cost Per Store section.**

   A. External and Internal Project Costs per Store are estimated costs on a “per store basis”

B. External and Internal Project Costs related to up-front/one-time costs are applied at the time a store is deployed, and are not applied after deployment; therefore, these costs are multiplied by the "Stores Deployed" parameter and only apply to new stores deployed each month
C. External and Internal Project Costs related to Recurring Monthly costs are applied once a store has been deployed and monthly thereafter; therefore these costs are multiplied by the "Total Stores Deployed" parameter
D. Enterprise Level Costs are handled a bit differently from an up-front/one-time and recurring costs perspective
    i. Up-front/one-time enterprise level costs are applied only at the start of the project and are only in the first month a project begins; these costs are not tied to "Store Deployed" or "Total Stores Deployed" parameters
    i. Recurring enterprise level costs are applied monthly at the start of a project and start in the first month a project begins and continue for the duration of the project; enterprise level costs are not dependent on "Stores Deployed" or "Total Stores Deployed" parameters

3 **Based on information gathered in Section 4.2 of this user guide on estimated benefits of the project, proceed to fill out input cells designated in green in the Benefits per Store section**

A. Consult Section 5.2 of this guide on how to set up Scenario Analysis
B. Proposed benefits may be supplied by the vendor or require an internal analysis to develop assumption

4 **Based on information gathered in Section 4.2 of this user guide on proposed roll-out plans, fill out the input cells designated in green in the Proposed Roll-out Section, and delete input from cells not designated in green.**

A. Consult Section 5.2 of this guide on how to set up Scenario Analysis
B. Indicate in Stores Deployed column for each month how many stores can be reasonably deployed with the project technology
C. The Total Stores Deployed should be a cumulative sum of the Stores Deployed column. Be sure Total Stores Deployed does not exceed the Store Count attribute on the Brand Attributes Inputs tab
D. The Months column is auto-generated based on the Length of Term input on the Brand Attributes Inputs tab

5 **Add any additional notes on costs, benefits, and roll-out in the designated comment and notes input sections**

# Scenario Analysis and Comparisons

**The model supports three scenarios for:**

- Brand Attributes
- Store Attributes
- Proposed Store Roll-out Schedule
- Benefits of Solution

**Scenarios can be used to model the following comparisons. It is advised to use one comparison at a time**

- Store Tiers Comparison
  - In this comparison, each Scenario represents a tier/grouping of stores allowing the model user to quickly understand how store groupings may have different payback results
  - Example: Scenario 1 always applies to Tier A, Scenario 2 applies to Tier B, and Scenario 3 applies to Tier C
  - Store groupings or Tiers are stores that function very similarly to one another, for example have around the same AUV (annual unit volume)
  - This model allows the user to toggle quickly between scenarios and understand payback for three different store tiers
  - IMPORTANT: **Drop-Down Cell must indicate Y (Yes) on Brand Attributes tab**
    - This eliminates the use of the Enterprise Level Project Costs inputs in payback calculations
    - Prevents Enterprise Level Costs being applied to only a subset of stores
  - Set up the scenarios as follows on the Brand Attributes Inputs tab:
    - Input the Store Count for each of the tiers to be analyzed along with the respective AUV for each tier
    - Store Attributes (Sales and/or Costs) of the tiers must match up with the scenarios input for the Store Count and AUV
      - Input the corresponding Sales, Labor Cost, Food Cost, and Other Costs parameters in the appropriate Scenario based on the Store Count/ AUV matching scenario
  - Set-up the scenarios as follows for the Proposed Roll-Out Section on the Projects Input tab
    - Proposed roll-out scenarios must match up to the Store Count and AUV scenarios as well as the Store Attributes scenarios set-up on the Brand Attributes tab
    - For Example: Store Count for Scenario 1 must correspond to Proposed Roll-Out Scenario 1, so “Total Stores Deployed” cannot exceed the Store Count for Scenario 1

- Benefits scenarios in the Benefits per Store section on the Project Inputs tab do not have to strictly follow tier groupings unless there are reasons that one tier may or may not see a benefit because of intrinsic factors that are specific to that tier grouping, in that case, Scenarios across all tabs would have to be consistently applied to even the Benefits per Store scenarios
- Schematic of the Store Tiers Comparison when all Scenarios are synced to a tier grouping

**Tier A** Scenario 1 (Brand Attributes), Scenario 1 (Store Attributes), Scenario 1 (Proposed Roll-Out), Scenario 1 (Benefits per Store)

**Tier B** Scenario 2 (Brand Attributes), Scenario 2 (Store Attributes), Scenario 2 (Proposed Roll-Out), Scenario 2 (Benefits per Store)

**Tier C** Scenario 3 (Brand Attributes), Scenario 3 (Store Attributes), Scenario 3 (Proposed Roll-Out), Scenario 3 (Benefits per Store)

- Compare how different Roll-Out Schedules and Benefits per Store Estimates affect Payback Results
  - In this comparison, Scenarios for Proposed Roll-out and Benefits per Store on the Projects Inputs tab can be used to test how different outcomes will affect payback.

**Example** Base Case = Scenario 1 (Proposed Roll-Out) and Scenario 1 (Benefits per Store), Optimistic Case = Scenario 2 (Proposed Roll-Out) and Scenario 2 (Benefits per Store), Pessimistic Case = Scenario 3 (Proposed Roll-Out) and Scenario 3 (Benefits per Store)

  - In this comparison, you can also use Scenarios in Proposed Roll-Out and Benefits per Store on the Projects Inputs tab to compare forecast vs actual, by designating a scenario for Actual and updating that Scenario when new data comes in from the technology project.

**Example** Base Case = Scenario 1 (Proposed Roll-Out) and Scenario 1 (Benefits per Store), Optimistic Case = Scenario 2 (Proposed Roll-Out) and Scenario 2 (Benefits per Store), Actual Case = Scenario 3 (Proposed Roll-Out) and Scenario 3 (Benefits per Store)

  - This model allows the user to toggle between different Scenarios quickly and see the payback results

- **IMPORTANT: Drop-Down Cell must indicate N (No) on Brand Attributes tab**
  - This allows the use of the Enterprise Level Project Costs inputs in payback calculations
  - Store Count and AUV will likely be the same for each Scenario
- Toggling between scenarios:
  - The Development Views tab B3:B5
  - Drop-down menu of options
- Be sure to explain Scenarios and Comparisons in the designated notes sections on both the Brand Attributes Inputs and Project View tabs.

To do a Vendor Comparison, it is best to run the model a separate time for each vendor either utilizing the Store Tier Comparison or Roll-Out/Benefits per Store comparison. Then save and look at the results to see and compare the expected payback results for each vendor

# Interpreting Analysis Results

- This model supplies information on how long it will take to recoup an investment in a technology project, commonly known as the payback period or break-even point
- Users should consult with Accounting and Finance teams to perform any other analyses such as time value of money (NPV), detailed ROI, and/or implications to the P&L statement (depreciation, taxes, interest rate/ loan implications, etc), balance sheet, and cash flow statement
- Users should consult with Operations teams to understand the impact to store operations related to technology implications
- Users should consult with Marketing teams to understand value to customers and customer experience
- There are also numerous soft implications that must be considered, such as customer satisfaction, competitive differentiation, and long-term technology modernization goals

# Reports and Visualization

## Generating Payback Results

- Results are found on the Deployment Views and Results Dashboard tabs; It is advised to limit modification of these tabs until fully understanding the formulas and tracing precedents and dependents of cells
- There are no "Run Analysis" or other types of trigger buttons. Results are generated automatically as information is supplied in the Brand Attributes Inputs and Project Views Inputs tab, so be sure to complete those tabs before viewing the Deployment Views and Results Dashboard tab
  - Deployment Views tab:
    - Left side is auto-generated and pulling information from Brand Attributes Inputs and Project View Inputs tab
    - The only manual interventions needed on the Deployment Views tab are found in B3:B5 where the user toggles between Scenarios of interest
    - Month by Month Sales and Costs for the Baseline View (Store Count and AUV pre-project) and Project View (Deployed and Undeployed stores) are found in the area to the right of the sheet
      - Baseline View is auto-generated from the Brand Attribute Inputs Tab in the store attributes section; this is base state of the stores and the current view of sales and expenses pre-technology project
      - Deployed stores are operating via calculations from the parameters indicated in Project Inputs tabs for costs and benefits attributed to the project. Undeployed stores are operating via calculations from the Brand Attribute Inputs tab and considered pre-project.
    - Project View - Baseline View = Total Benefits
    - Summing Project Costs = Total Costs
    - Total Benefits - Total Costs = Net Benefits
    - Cumulative Net Benefits is used to determine Payback Period
      - Identify the Month of the last negative cumulative net benefits calculation (Neg. Cash Flow), this is cell P89 on the Development Views tab

- Extract the actual calculated number of that month, cell P90 on the Development Views tab
- Extract the actual calculated number of the next month, Cell P91 on the Development Views tab
- Take the absolute value of P90 divided by P91 to get the fraction of the next month where the cash flow switches to positive, this will be displayed in Cell P92
- Add cell P89 to cell P92 to get the payback period in months in cell P95

- Graphic visual of Payback is shown around Row 87. Where the line crosses zero on the X-axis is the month that break-even is reached

Results Dashboard Tab

- The Results Dashboard Tab is a yearly roll-up of the monthly calculations found on the Deployment Views tab
- In this model, a year is designated as 12-months, and the first 12 months on the Deployment Views tab is designated as Year 1. Adjust the Proposed Roll-out Scenarios to start a project in later months, so there will be zero deployed stores up until the technology project starts
- Considerations outside of the model will have to be made if the accounting cycle is not a 12-month cycle; the model does not intrinsically account for this situation, so work with accounting teams to determine the best way to interpret results if your company abides by, for example, a 13-month cycle
- The graphic visual displays Cumulative Benefits vs Cumulative Costs calculated in range E2:I9 on the Results Dashboard tab; the intersection of the two lines is another way to determine when the break-even point is reached, or the payback period time in years is achieved.
- To the right of the Cumulative Benefits vs Cumulative Costs is the Payback Period in Months.
- There is a summary of when 100% of the stores are deployed and at the month this occurs below the Cumulative Benefits vs Cumulative Costs graph

# Data Visualization

Easy print, copy & paste

- The Results Dashboard is easily copied and pasted into a powerpoint slide via screenshot or screen grab
- The Results Dashboard is easily printed and viewed on one-page
- The Brand Attributes Inputs, Project Views, and Results Dashboard tabs are easily shared via virtual meetings

# Exporting and Sharing

## Exporting Data

It is advised to work within Google Sheets.

- To save a copy of the Google Sheet to Google Drive-
  - Click File, Make A Copy
  - In the pop-up box, name the copy, check “copy comment”, and choose the appropriate Google Drive folder destination
  - Click “Make A Copy” button
- To save a PDF of the Results Dashboard Tab
  - Navigate to the Results Dashboard tab and click a cell within that tab
  - Click File, Download
  - Choose PDF
  - In the options choose Current Sheet
  - Click Export button
- To export the Google Sheet to Excel
  - Click File, Download
  - Choose Microsoft Excel
  - The file will then export to your “Downloads” folder on your computer
  - The file will typically open in Protected View, once you enable editing, you will likely see errors
  - Common Quick fixes to get you started:
    - On Projects Input Tab, just type the Months in starting at B31
    - Remove any @ symbols within “IF” formulas
    - On the Results Dashboard Tab, right click the graph, choose Select Data, In the “Horizontal Edit” area, unselect any boxes that do not have a number/year beside them

## Sharing Reports

- Google Sheets can be shared via link with those that have been given permission to view and/or edit
- Options for sharing via Google are found in the upper right corner via the blue Share button

# Security and Data Protection

General information about Google Drive's privacy and security measure can be found here: **https://support.google.com/drive/answer/10375054?hl=en**

# Frequently Asked Questions (FAQ)

### What is a payback period?

Payback period is defined as the number of years required to recover the original cash investment

### What are the advantages of using a payback period to assess a project?

- Simple to compute and requires fewer inputs than other financial methods
- Quick way to assess risk; shorter payback period may be less risky than longer payback period projects
- Highly suitable small businesses or for projects where the exact estimation of cash inflows in future years is challenging

### What are the disadvantages of using a payback period to assess a project?

- Does not account for the time value of money or Net Present Value of future cash flows, which may be important to business finance teams
- Is does not take into consideration of how the project will be funded (loan vs cash-on-hand, etc) or implications of depreciation

### Why is my payback result an #N/A error?

This is most likely due to a payback period beyond the designated time period, which means the project does not recoup the cost in the time period chosen in cell C14 of Brand Attributes Tab

### How do you compare different cost scenarios?

- The model allows you to compare different benefits scenarios and roll-out

scenarios, it doesn't however intrinsically allow you to compare project cost scenarios

- To compare cost scenarios, it is advised to save the model for each cost scenario separately and compare the Results Dashboard of each of the saved cost scenarios

**How do I use the model for something other than a 12-month accounting cycle, i.e for a 13-period accounting cycle?**

- Work with your accounting team to equate the "Month" to a "Period". The model is built on a standard 12 months per year assumption. Below are a few suggestions on how to get started to change to a different accounting cycle.
  - Adjust time period on the Brand Attributes Tab cell C14
  - Adjust dropdown menu in the Brand Attributes Tab in cell C14 by clicking the dropdown arrow and choosing the "edit button", which is a small pencil at the bottom of the dropdown list
  - Adjust year calculation on the Results Dashboard Tab in cell B6
  - Change ranges on the Results Dashboard Tab in the F4:J5 cells that aggregate the periods (Months) from the Deployment Views Tab

# Glossary

**Detailed Glossary is found in the RTN Payback Comparison Tool Google Sheet**

| TERM | TERM DEFINITION |
|---|---|
| STORE COUNT | Total Stores to use for the analysis<br>a) This can be total store count of the enterprise, or<br>b) A subset of stores slated for the project |
| AUV PER STORE | Annual Unit Volume is the average sales per store for the "Store Count" attribute.<br>Calculation: Total Sales of the Stores under evaluation/ Store Count<br>For example: If annual sales for the total enterprise is $1,000,000, and there are 100 stores<br>in the enterprise, then AUV per store would equal 1,000,000 / 100 or $10,000. |

| | |
|---|---|
| **COMPARING STORE TIERS** | Store Tiers are distinct store sets with certain characteristics, most commonly they are stores that may perform similarly from a revenue or cost perspective. One feature of the model is that it is possible to compare payback over these store tier sets (max 3 sets). You would do this by making each of the tiers a different scenario for Store Count and AUV per Store. Then each scenario in the model will have to follow the tier grouping (Scenarios for Store Attributes and Cost and Scenarios for Roll-out)<br><br>Then choose:<br>Y: Yes, you are comparing store tiers<br>Note: Choosing Yes will inactivate the Enterprise Cost Attributes (see user guide for more details) |
| **LENGTH OF TERM (MONTHS)** | The length of time, in months, of the project analysis; choose from 24, 36, 48, or 60 months. This will auto populate months cells in the deployment view tab. |
| **SALES** | Monthly Average Sales per Store; Calculation: AUV per Store / 12. This autocalculates, but can be adjusted. |
| **LABOR COST** | Monthly Average Labor Cost per Store; Calculation: Total Labor Cost Per Year / Store Count / 12. Labor cost is the total of wages, benefits, and payroll taxes paid to and for all employees. Itn includes both Direct and Indirect labor costs. Direct labor costs are the wages paid to the employees that produce products or services. Indirect labor costs are costs that facilitate that production. This should be input as an absolute number.. |
| **FOOD COST** | Monthly Average Food Cost per Store; Calculation: Total Food Cost per Year / Store Count / 12. It is the cost of the food items included in the menu choices. It does not include labor for food preparation. This is an absolute number, and not a percentage. |
| **OTHER OPERATING EXPENSE** | Monthly Average Cost per Store; Calculation: Total Other Cost per Year/ Store Count / 12. This is input as an absolute number. |
| **EXTERNAL PROJECT COSTS** | External Project Costs: Individual store costs of the project/solution components.<br>- Hardware examples: Large displays for digital menu boards, tablets for pay at the table, POS Terminals, Printers, etc.<br>- Software examples: Digital menu board client licenses, payment gateway mobile client subscriptions, POS subscriptions, etc.<br>- Services examples: Project management, on-site installation, store-level device configuration, remote go-live support, etc. |

| | |
|---|---|
| **INTERNAL PROJECT COSTS** | Internal Project Costs are costs incurred by individual stores, and usually directly related to employees, on-going capabilities and processes needed to run the store post-project, or additional on-going store activities that result in overhead post-project. |
| **ENTERPRISE LEVEL PROJECT COSTS** | Project Costs incurred on the corporate-level and in this model, not based on individual store deployment, but rather incurred as soon as a project begins. Only input enterprise level costs if additional resources are needed at the corporate level due to execution or completion of the project. Enterprise Level costs are left blank if comparing store tiers as this will not be applicable if only looking at a subset of the enterprise. If you are looking at all stores within the enterprise, then the cells will be green, and inputs are needed. |
| **INTERNAL AND EXTERNAL COSTS UPFRONT/ONE-TIME** | Up-front or One-Time Internal and External Costs are costs that occur at the deployment of the technology in a new store, but once the store is deployed, these costs are no longer applied. Examples include hardware or installation services costs for a store deployment. |
| **INTERNAL AND EXTERNAL COSTS RECURRING (MONTHLY)** | Recurring (monthly) internal and external project costs are costs that happen every month after the deployment of a store technology. Typically these are applied on a per month and per store basis, but in the case of enterprise level recurring costs, this may not be the case. Examples may include software subscription costs. |
| **HARDWARE** | Tools, Machinery, or Equipment; examples include additional data servers |
| **SOFTWARE** | Applications or programs that operate computers and run specific tasks; Examples include data analysis software |
| **SERVICES** | Intangible activities provided by third-parties to get the technology installed and/or ensure it's operational. Examples include software maintenance or maintenance services |
| **TRAINING** | Education and certifications on how to use and/or configure deployed technology; on-going certifications or compliance requirements |
| **SUPPORT** | Assistance to employees and the wider organization for technology-related issues (I.T. Support). Its purpose is to provide users with answers to problems they may be experiencing. It also includes optimizing network performance, securing against cyberattack attacks, disaster recovery, and backup. The main goal is to prevent the technology from having issues, and if it does, making sure those problems are solved efficiently. |

| | |
|---|---|
| **OTHER** | Any other internal expense not covered in the above definitions |
| **ENTERPRISE LEVEL COSTS UPFRONT/ONE-TIME** | Up-front or One-Time Enterprise Level Costs are costs that occur at the onset of a project and captured in month 1. They are necessary for a project to begin regardless if any stores have been deployed with the technology. |
| **ENTERPRISE LEVEL COSTS RECURRING (MONTHLY)** | Recurring (monthly) Enterprise Level Costs are costs that happen every month after the project begins. In this model it is a cost incurred regardless of the number of stores deployed. It is assumed that this cost is incurred as soon as the project begins. Examples may include software subscription costs that are set-up prior to a technology being deployed in a store. |
| **ENTERPRISE LEVEL COSTS** | Corporate-level hires due to technology project, irrespective of store |
| **HEADCOUNT/ PERSONNEL** | Deployment or count |
| **ENTERPRISE LEVEL COSTS SOFTWARE** | Corporate-level software needs to manage technology during and/or post- project |
| **ENTERPRISE LEVEL COSTS SERVICES AND/ OR VENDOR UP-FRONT PAYMENT** | Corporate-level costs paid to third-party service providers or technology vendor to initiate, deploy, and/or maintain the project or technology for the stores |
| **ENTERPRISE LEVEL COSTS TRAINING** | Corporate-level Education and certifications on how to use and/or configure deployed technology |
| **ENTERPRISE LEVEL COSTS SUPPORT** | Corporate-level provided support for the technology |
| **ENTERPRISE LEVEL COSTS OTHER** | Corporate-level provided support for the technology |

| | |
|---|---|
| **MONTH** | Month is auto-filled based on the Term Length Input on the Brand Attributes Tab; Scenarios are provided so that you can test out multiple roll-out scenarios. One feature of the model is the ability to test out how roll-out affects the payback and results (must have N for Comparing Tiers on Brand Attributes Tab) for a given Store Count and AUV (on the Brand Attributes Tab). |
| **STORE DEPLOYED** | New stores deployed in the month |
| **TOTAL STORES DEPLOYED** | Total stores that have been deployed; cumulatively adds up new stores and cannot exceed Store Count on Brand Attributes tab. |
| **SALES (PERCENT INCREASE IN MONTHLY SALES)** | Estimate of the Percent Increase in monthly sales expected as a benefit of the project; usually a small percentage (0-5%) |
| **LABOR COST (PERCENT REDUCTION IN MONTHLY COST)** | Estimate of the Percent Decrease in monthly Labor-related cost expected as a benefit of the project, therefore the number should be preceded by a negative (-) sign in the cell. This benefit would account for a technology that reduces the labor hours a store may need to operate. In most cases labor will be redistributed to more value-add activities, so labor savings will be minimal in these cases; usually a small percentage (0-5%) |
| **FOOD COST (PERCENT REDUCTION IN MONTHLY COST)** | Estimate of the Percent Decrease in monthly food-related costs expected as a benefit of the project, therefore the number should be preceded by a negative (-) sign in the cell. This benefit would account for food-cost savings, examples include, but are not limited to technologies that reduce spoilage, manage food inventory, create efficiencies in food preparation and storage, and/or optimize the food supplier supply chain; usually a small percentage (0-5%) |
| **OTHER OPERATING EXPENSES (PERCENT REDUCTION IN MONTHLY COST)** | Estimate of the Percent Decrease in monthly cost not accounted for above (cost-savings), as a benefit of the project, therefore the number should be preceded by a negative (-) sign in the cell; usually a small percentage (0-5%) |
| **SCENARIO 1, 2, OR 3** | Scenarios for Brand and Store Attributes were set-up on the Brand Attributes Input Tab. This input allows you to choose which scenario to use for the analysis output calculations. You can toggle between scenarios to see how the payback and other results change. |

| | |
|---|---|
| **SCENARIO 1, 2, OR 3** | Scenarios for Roll-outs were set-up on the Project Input Tab. This input allows you to choose which scenario to use for the analysis output calculations. You can toggle between scenarios to see how the payback and other results change. |
| **SCENARIO 1, 2, OR 3** | Scenarios for Benefits Scenario were set-up on the Project Inputs Tab. This input allows you to choose which scenario to use for the analysis output calculations. You can toggle between scenarios to see how the payback and other results change. |
| **PERCENT OF STORES DEPLOYED** | Auto generated by formula; Percent of Store Count on the Brand Attributes Inputs tab. Formula: Total Stores Deployed / Store Count |
| **DEPLOYED AND UNDEPLOYED STORE SUMMARY** | Deployed stores are operating via calculations from the parameters indicated in Project Inputs tabs for costs and benefits attributed to the project. Undeployed stores are operating via calculations from the Brand Attribute Inputs tab. |
| **PROJECT VIEW TOTAL** | The sum of deployed and undeployed parameters as the technology project progresses |
| **TOTAL BENEFITS** | The difference between the Project View Total and the Baseline View as the project progresses; this comparison determines the Total Benefits as a result of the technology deployment project over the time period |
| **EXTERNAL** | Auto-calculated based on inputs from the Project inputs tab; Calculated by multiplying costs by the appropriate number of stores for a particular roll-out scenario. External Project Costs are costs that are linked to external materials or expenses needed in order to complete the project and documented on the individual store books |
| **INTERNAL** | Auto-calculated based on inputs from the Project inputs tab; Calculated by multiplying costs by the appropriate number of stores for a particular roll-out scenario. Internal Project Costs are costs incurred by the store and usually directly related to employees, on-going capabilities and processes needed to run the store post-project, or additional on-going store activities that result in overhead post-project. |
| **ENTERPRISE** | Auto-calculated based on inputs from the Project inputs tab; This is not-applicable if you are comparing store tiers (Y on the Brand Attribute Inputs tab); Project Costs incurred on the corporate-level and held on the corporate-level books and not disbursed to the individual stores |

| | |
|---|---|
| **UPFRONT/ONE-TIME** | Auto-calculated; Up-front or One-Time Internal and External Costs are costs that occur at the deployment of the technology in a new store, but once the store is deployed, these costs are no longer applied. Examples include hardware or installation services costs for a store deployment. |
| **RECURRING (MONTHLY)** | Recurring (monthly) internal and external project costs are costs that happen every month after the deployment of a store technology. Typically these are applied on a per month and per store basis, but in the case of enterprise level recurring costs, this may not be the case. Examples may include software subscription costs. |
| **TOTAL COSTS** | Sum of all Internal, External, and Enterprise Project Costs by Month |
| **NET BENEFITS** | Total Benefits - Total Costs |
| **CUMULATIVE NET BENEFITS** | Cumulative Monthly Sum of Total Benefits - Total Costs; This is used to determine the payback period |
| **UNDISCOUNTED PAYBACK PERIOD (MONTHS)** | Auto-Calculated using information on Deployment View Tab P89:P92; The length of time required for an investment to recover its initial outlay in terms of profits or savings; also known as the "breakeven point", when what you've cumulatively invested minus the cumulative benefits is zero; In the graph it is at the point on the x-axis (the month) where the net benefits line hits zero on the Y-axis. |
| **PERCENT OF STORES DEPLOYED** | Auto-Calculated based on Deployment View Tab Row 6; Total Stores Deployed / Store Count at the end of every year |
| **MONTH FULLY DEPLOYED** | Auto-Calculated based on Deployment View Tab Row 7; The year in which 100% deployment of the store count has been achieved |

# Appendices

## Example Use Case: Comparison of Two Different Vendors, Same Technology

- Brand Attributes are the same for both Vendors, Not comparing store tiers
- Benefits Scenarios and Roll-Out Scenarios the same for both Vendors
- Different project costs

| | Vendor A | Vendor B |
|---|---|---|
| **Brand Attributes** | | |
| Store Count | 100 | 100 |
| AUV Per Store | $1,500,000 | $1,500,000 |
| **Payback Attributes** | | |
| Length of Term (Months) | 36 | 36 |
| **Store Attributes** | | |
| Sales | $125,000 | $125,000 |
| Labor Costs | $38,750 | $38,750 |
| Food Costs | $38,750 | $38,750 |
| Other Operating Expenses | $38,750 | $38,750 |

| | Up-front/One-time | | Recurring (Monthly) | |
|---|---|---|---|---|
| | Vendor A | Vendor B | Vendor A | Vendor B |
| **External Project Cost per Store** | | | | |
| Hardware | $15,000 | $2,000 | | |
| Software | | | $300 | $350 |
| Services | $3,500 | | | $400 |
| Training | | | | |
| Other | | | | |

| | Up-front/One-time | | Recurring (Monthly) | |
|---|---|---|---|---|
| | **Vendor A** | **Vendor B** | **Vendor A** | **Vendor B** |
| **Internal Project Cost per Store** | | | | |
| Hardware | | | | |
| Software | | | | |
| Services | | | | |
| Training | **$100** | **$200** | | |
| Other | | | | |

| | Up-front/One-time | | Recurring (Monthly) | |
|---|---|---|---|---|
| | **Vendor A** | **Vendor B** | **Vendor A** | **Vendor B** |
| **Enterprise Level Costs Due to Project** | | | | |
| HC/Personnel | | | | |
| Software | | | | |
| Services | **$25,000** | **$10,000** | | |
| Training | **$5,000** | **$10,000** | | |
| Support | | | | |
| Other | | | | |

| | Vendor A | Vendor B |
|---|---|---|
| **Brand Attribute Benefits** | | |
| Increase in Sales | **1%, 2%, 3%** | **1%, 2%, 3%** |
| Reduction in Labor Cost | | |
| Reduction in Food Cost | | |
| Reduction in Other Operating Costs | | |

| | Roll-out Scenario 1 | | Roll-out Scenario 2 | | Roll-out Scenario 3 | |
|---|---|---|---|---|---|---|
| **Scenario Name** | **All Stores** | | **All Stores** | | **All Stores** | |
| **Month** | **Stores Deployed** | **Total Stores Deployed** | **Stores Deployed** | **Total Stores Deployed** | **Stores Deployed** | **Total Stores Deployed** |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 3 | 2 | 4 | 2 | 4 | 1 | 3 |
| 4 | 2 | 6 | 2 | 6 | 1 | 4 |
| 5 | 3 | 9 | 3 | 9 | 1 | 5 |
| 6 | 3 | 12 | 3 | 12 | 1 | 6 |
| 7 | 3 | 15 | 3 | 15 | 1 | 7 |
| 8 | 3 | 18 | 3 | 18 | 1 | 8 |
| 9 | 3 | 21 | 3 | 21 | 1 | 9 |
| 10 | 3 | 24 | 3 | 24 | 2 | 11 |
| 11 | 3 | 27 | 3 | 27 | 2 | 13 |
| 12 | 3 | 30 | 3 | 30 | 2 | 15 |
| 13 | 3 | 33 | 3 | 33 | 2 | 17 |
| 14 | 3 | 36 | 3 | 36 | 2 | 19 |
| 15 | 3 | 39 | 3 | 39 | 2 | 21 |
| 16 | 3 | 42 | 3 | 42 | 2 | 23 |
| 17 | 5 | 47 | 5 | 47 | 2 | 25 |
| 18 | 5 | 52 | 5 | 52 | 5 | 30 |
| 19 | 5 | 57 | 5 | 57 | 5 | 35 |
| 20 | 5 | 62 | 6 | 63 | 5 | 40 |
| 21 | 5 | 67 | 12 | 75 | 5 | 45 |
| 22 | 10 | 77 | 12 | 87 | 5 | 50 |
| 23 | 10 | 87 | 12 | 99 | 5 | 55 |
| 24 | 10 | 97 | 1 | 100 | 5 | 60 |
| 25 | 3 | 100 | 0 | 100 | 5 | 65 |
| 26 | 0 | 100 | 0 | 100 | 5 | 70 |
| 27 | 0 | 100 | 0 | 100 | 5 | 75 |
| 28 | 0 | 100 | 0 | 100 | 10 | 85 |
| 29 | 0 | 100 | 0 | 100 | 10 | 95 |
| 30 | 0 | 100 | 0 | 100 | 5 | 100 |
| 31 | 0 | 100 | 0 | 100 | 0 | 100 |
| 32 | 0 | 100 | 0 | 100 | 0 | 100 |
| 33 | 0 | 100 | 0 | 100 | 0 | 100 |
| 34 | 0 | 100 | 0 | 100 | 0 | 100 |
| 35 | 0 | 100 | 0 | 100 | 0 | 100 |
| 36 | 0 | 100 | 0 | 100 | 0 | 100 |

## Results for Vendor A using 2% Sales Benefit and Scenario 2 for Roll-Out:

| MODEL SETTINGS | | |
|---|---|---|
| Attributes Scenario: | 1 | All Stores |
| Deployment Scenario: | 2 | All Stores |
| Benefits Scenario: | 2 | All Stores |
| Number of Years: | 3 | |

| BRAND ATTRIBUTES | |
|---|---|
| Store Count: | 100 |
| AUV per Store: | $1,500,000 |

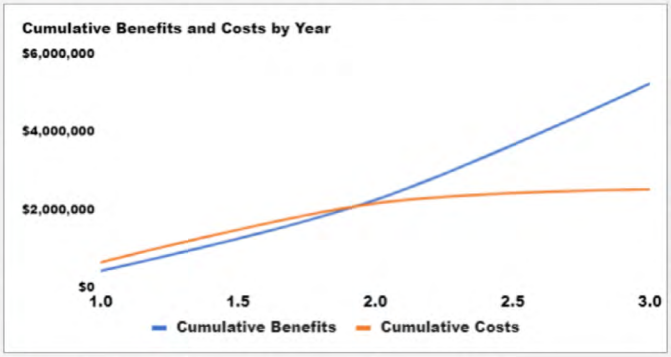
| STORE ATTRIBUTES (MONTHLY AVERAGE) | |
|---|---|
| Sales | $125,000 |
| Labor Cost | $38,750 |
| Food Cost | $38,750 |
| Other Operating Expenses | $38,750 |

| BRAND ATTRIBUTES SOLUTION BENEFITS | |
|---|---|
| Sales (Increase in Sales) | 2% |
| Labor Cost (Reduction in Cost) | 0% |
| Food Cost (Reduction in Cost) | 0% |
| Other Expenses (Reduction) | 0% |

| EXTERNAL PROJECT COSTS PER STORE | |
|---|---|
| Up-front/One-time | $18,500 |
| Recurring (Monthly) | $300 |

| INTERNAL PROJECT COSTS PER STORE | |
|---|---|
| Up-front/One-time | $100 |
| Recurring (Monthly) | $0 |

| Year: | 1 | 2 | 3 |
|---|---|---|---|
| Project Benefits | $422,500 | $1,825,000 | $3,000,000 |
| Project Costs | $638,700 | $1,521,000 | $360,000 |
| Net Benefits | -$216,200 | $304,000 | $2,640,000 |
| Cumulative Net Benefits | -$216,200 | $87,800 | $2,727,800 |
| Cumulative Benefits | $422,500 | $2,247,500 | $5,247,500 |
| Cumulative Costs | $638,700 | $2,159,700 | $2,519,700 |




Payback: 23.6 Months

Month Fully Deployed: 24

| % Stores Deployed: | 1 | 2 | 3 |
|---|---|---|---|
| | 30% | 100% | 100% |

## Results for Vendor B using 2% Sales Benefit and Scenario 2 for Roll-Out:

| MODEL SETTINGS | | |
|---|---|---|
| Attributes Scenario: | 1 | All Stores |
| Deployment Scenario: | 2 | All Stores |
| Benefits Scenario: | 2 | All Stores |
| Number of Years: | 3 | |

| BRAND ATTRIBUTES | |
|---|---|
| Store Count: | 100 |
| AUV per Store: | $1,500,000 |

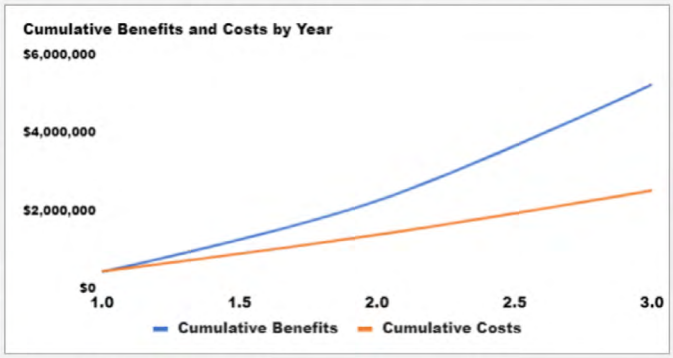
| STORE ATTRIBUTES (MONTHLY AVERAGE) | |
|---|---|
| Sales | $125,000 |
| Labor Cost | $38,750 |
| Food Cost | $38,750 |
| Other Operating Expenses | $38,750 |

| BRAND ATTRIBUTES SOLUTION BENEFITS | |
|---|---|
| Sales (Increase in Sales) | 2% |
| Labor Cost (Reduction in Cost) | 0% |
| Food Cost (Reduction in Cost) | 0% |
| Other Expenses (Reduction) | 0% |

| EXTERNAL PROJECT COSTS PER STORE | |
|---|---|
| Up-front/One-time | $2,000 |
| Recurring (Monthly) | $750 |

| INTERNAL PROJECT COSTS PER STORE | |
|---|---|
| Up-front/One-time | $200 |
| Recurring (Monthly) | $0 |

| Year: | 1 | 2 | 3 |
|---|---|---|---|
| Project Benefits | $422,500 | $1,825,000 | $3,000,000 |
| Project Costs | $432,750 | $941,500 | $1,140,000 |
| Net Benefits | -$10,250 | $883,500 | $1,860,000 |
| Cumulative Net Benefits | -$10,250 | $873,250 | $2,733,250 |
| Cumulative Benefits | $422,500 | $2,247,500 | $5,247,500 |
| Cumulative Costs | $432,750 | $1,374,250 | $2,514,250 |




Payback: 12.3 Months

Month Fully Deployed: 24

| % Stores Deployed: | 1 | 2 | 3 |
|---|---|---|---|
| | 30% | 100% | 100% |

# Conclusions

1. With sales benefit and roll-out the same, Vendor B's costs would potentially drive a faster payback period of 12.3 months compared to 23.6 months for Vendor B. Additionally, the graph of the cumulative costs of Vendor B is trending up and beyond the total costs of Vendor A.

2. Using the scenarios for roll-out and benefits, the user would be able to understand a range of paybacks that they could reasonably expect from each vendor.

3. Once the project begins, scenarios can be used to get real time adjusted estimates of payback based on actual roll-out and benefits.

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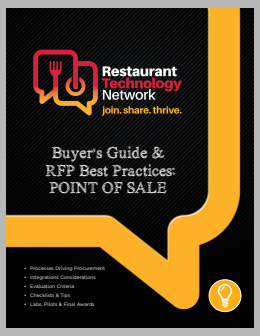


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