

COFFEE SHOP – STEP BY STEP GUIDE PART 2

Adding the dynamic modelling options

Having reviewed the reports and considered the questions in part 3.1 above, we'll now add some dynamic modelling options to the Coffee Sales and Cost of Goods Sold elements. Our plan is to base the sales and COGS numbers on the underlying operations drivers. In this business, revenue is a function of:

1. how long the shop is open each day/week (eg in hours or trading days)
2. the volume of transactions occurring (eg the number of cups, customers or kg of coffee per day)
3. the revenue generated per transaction (eg the selling price per cup, average sale per customer or revenue yield per kg of coffee)

By linking the operations inputs to the financial outcomes, we create a dynamic model that is much better suited to:

1. performing what-if analysis on key drivers
2. analysing different sales growth profiles
3. presenting a more insightful story to banks or other financiers

After considering the options, we have decided that:

- Coffee Sales will be calculated as: *Days per Month* x *Cups per Day* x *Price per Cup*
- Cost of Sales will be calculated as: *Days per Month* x *Cups per Day* x *Cost per Cup*

To build these formulas, we first need to create several Driver elements. Click the Forecast Designer button at the top of the Chart of Accounts, then add the following Driver elements:

SECTION	Element Type	Name
Drivers	Driver	Days per Month
Drivers	Driver	Cups per Day
Drivers	Driver	Price per Cup
Drivers	Driver	Cost per Cup

Click OK to return to the main Castaway screen.

Next, we need to add data to each of the Driver elements.

DAYS PER MONTH: in the Driver data entry screen, click the Drivers button to show the Element Properties dialogue box (if it is not already open). Click the drop-down menu against Driver Input and select *Days in the Month*. The data entry screen changes, the first data row now has a blue background and shows the number of calendar days in each month. Save and Close

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CUPS PER DAY: open the Cups per Day element and enter the following:

Jul16	Aug16	Sep16	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17	Apr17	May17	Jun17
0	200	250	300	350	400	350	350	350	350	350	350

PRICE PER CUP: Enter \$4 for each month

COST PER CUP: Enter \$1.20 for each month

With the Driver data added, we can add the formula to the Coffee Sales element:

1. Open the **Coffee Sales** element and click the *Revenue* button
2. from the **Revenue Method** drop-down list, select *Add Formula*
3. click the 3-dot box to the right of the Formula Editor title
4. in the formula editor that appears:
 - a. double-click *Days per Month*, then single click the multiplier symbol
 - b. double-click *Cups per Day*, then single click the multiplier
 - c. double-click *Price per Cup*
 - d. review the **Calculation Result** at the bottom of the screen
 - e. click OK to return to the data entry screen
5. confirm that the **Formula Results** are showing in the data entry screen

The last step is to create a driver-based formula in the Cost of Goods Sold element:

1. open the **Cost of Goods Sold** element and click the *Cost of Goods Sold* button
2. from the **COGS Method** drop-down list, select *Add Formula*
3. click the 3-dot box to the right of the Formula Editor title
4. in the formula editor that appears:
 - a. double-click *Days per Month*, then single click the multiplier
 - b. double-click *Cups per Day*, then single click the multiplier
 - c. double-click *Cost per Cup*
 - d. review the **Calculation Result** and click OK to return to the data entry screen
5. confirm that the **Formula Results** are showing in the data entry screen

Some questions to consider

1. What benefits do you see in moving to a Driver-based modelling approach?
2. Outline several ways you could model different scenarios for these Drivers in Castaway
3. What other elements would you make dynamic to better tell the story of the business
4. Consider what metrics/KPIs you might add to your reports now you have included these activity Drivers
5. What further improvements can you imagine for this model?