Solution to Challenge #397: AAI Special Edition – Financial Insight: Spend Analysis

Here are the answers to the first Auto Insights challenge.

Task:

Create a Mission (KPI Deep Dive Report) using the preloaded **Finance Month-end Analysis** dataset (available in the Datasets tab) using the **Spend** column as your **Measure**.

In your report, address the following questions about the company's expenses:

1. How much did the spend increase from September 2022 to October 2022?
   a. **$263,929 (3.31%)**
   b. $68,978 (22.44%)

   **To get there:**
   a. Measure = Spend
   b. Date = Oct 2022 vs Sep 2022.
   c. Offset your rolling date range by 1 month.

   To answer this question, create a new Mission, then select **Finance Month-end Analysis** as your dataset and **Spend** as your Measure.

   You are currently in edit mode of the Mission. In the left panel, select the first page of your Mission. This is called **Spend**.)

   Offset your rolling date range by 1 month. The "last" month will be Nov 2022 because that is the last complete month in the dataset, but you are looking for insights from Oct 2022 (1 month earlier than Nov 2022). Alternatively, you can set a fixed period and select Oct 2022.
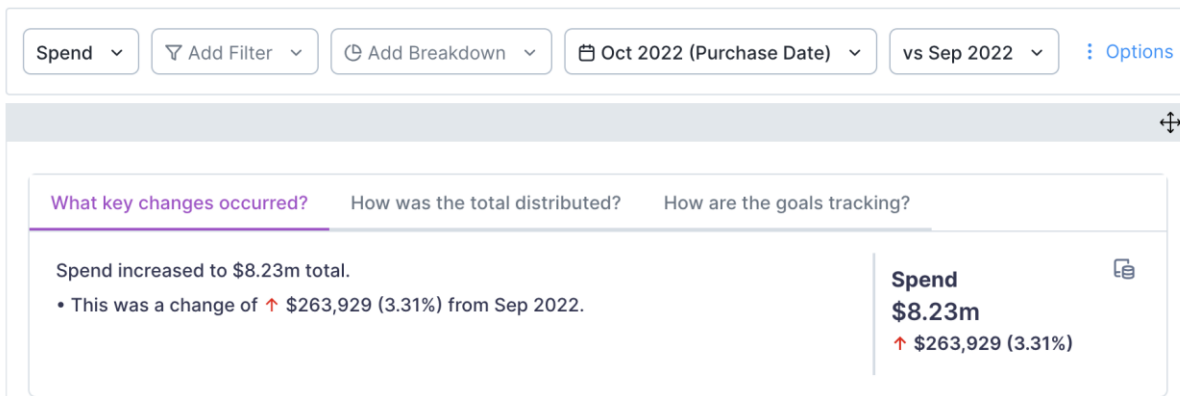
2. What were the top three drivers of this change?
   a. **Concrete products in Product Sub Description**
   b. **Cleveland in Site Location**
   c. **Boral - Construction Materials in Contract Name**
   d. Plaster and Panelling in Product Sub Description
   e. Andrea Forth in Orderer Name
   f. New York in Site Location

To get there:
   a. Query bar same as Q1.
   b. Scroll down the page to **What Caused This?**

| Spend ⌄ | ▽ Add Filter ⌄ | ⏱ Add Breakdown ⌄ | 📅 Oct 2022 (Purchase Date) ⌄ | vs Sep 2022 ⌄ | ⋮ Options |

WHAT CAUSED THIS?
The most likely causes of change for Spend were **Concrete products, Cleveland, Boral - Construction Materials, Quality Construction, Andrea Forth** and **Kimberly Stevens**

The most likely causes for the increase of ↑ $263,929 (3.31%) in Spend

Name ▴	Oct 2022 ⇵	Change (Amount) ⇵	Change (%) ⇵	
1. Concrete products in Product Sub Description	$3.1m	+$1.47m	+90.18%	⋮
2. Cleveland in Site Location	$1.64m	+$1.25m	+327.17%	⋮
3. Boral - Construction Materials in Contract Name	$2.3m	+$1.21m	+110.39%	⋮
4. Quality Construction in Entity	$2.11m	+$1.18m	+128.25%	⋮
5. Andrea Forth in Orderer Name	$1.65m	+$1.03m	+166.12%	⋮
6. Kimberly Stevens in Contract Manager	$6.83m	+$801,971	+13.3%	⋮

3. Add a Breakdown (Project Name). Which project had the highest increase in spend?
   a. **Project Greenwood**
   b. Project Jolimont
   c. Project Kandahar
   d. Project Redden

To get there:
   a. Query bar same as Q1.
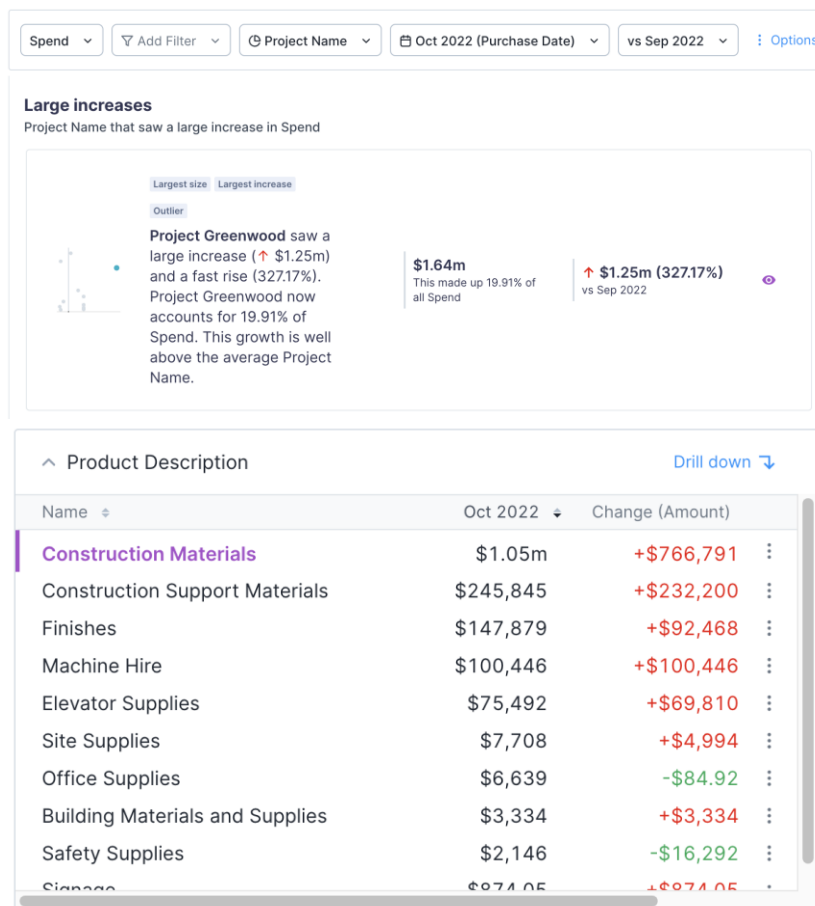   b. Add a Breakdown = Project Name

4. For the project identified in the previous question, what are the top three products that Built Things spent the most on?
   a. **Construction Materials**
   b. **Construction Support Materials**
   c. **Finishes**
   d. Machine Hire
   e. Safety Supplies
   f. Signage

To get there:
   a. Query bar same as Q3.
   b. Scroll to the **Large increases** story and select it.
   c. Scroll to **What Caused This?** and expand the **Product Description** segment.
   d. Sort by Spend (Example: **Oct 2022**, not Change Amount).

Spend ⌄	⊽ Add Filter ⌄	⊙ Project Name ⌄	⊟ Oct 2022 (Purchase Date) ⌄	vs Sep 2022 ⌄	⋮ Options

Large increases
Project Name that saw a large increase in Spend

Largest size   Largest increase

Outlier

Project Greenwood saw a large increase (↑ $1.25m) and a fast rise (327.17%). Project Greenwood now accounts for 19.91% of Spend. This growth is well above the average Project Name.

$1.64m
This made up 19.91% of all Spend

↑ **$1.25m (327.17%)**
vs Sep 2022

⊙

⌃ Product Description   Drill down ⤵

Name ⇕	Oct 2022 ⇕	Change (Amount)	
Construction Materials	$1.05m	+$766,791	⋮
Construction Support Materials	$245,845	+$232,200	⋮
Finishes	$147,879	+$92,468	⋮
Machine Hire	$100,446	+$100,446	⋮
Elevator Supplies	$75,492	+$69,810	⋮
Site Supplies	$7,708	+$4,994	⋮
Office Supplies	$6,639	-$84.92	⋮
Building Materials and Supplies	$3,334	+$3,334	⋮
Safety Supplies	$2,146	-$16,292	⋮
Signage	$874.05	+$874.05	⋮

5. What is the relationship between spend and the number of contracts? Select the most accurate implication of this insight.
   a. **On average, one contract corresponds to $117,517 in spend.**
   b. Built Things is spending less per contract on average.
   c. The ratio between spend and the number of contracts remained consistent.
   d. The number of contracts has no impact on spend.

   Complete answer to post: In October, on average, one contract corresponded to $117,517 in spend. This is $19,217 more than in September 2022, which means Built Things is spending more per contract on average. This increased ratio led to $1.35 million more spending in October 2022 compared to September 2022.

   To get there:
   a. Add a new query.
   b. Add a new measure: Number of Contract Id.
   c. Scroll down to What is the relationship between Spend and Number of Contract Id?

Spend ⌄	▽ Add Filter ⌄	⏱ Add Breakdown ⌄	🗓 Oct 2022 (Purchase Date) ⌄	vs Sep 2022 ⌄	⋮ Options
Number of Contract Id ⌄	▽ Add Filter ⌄	Matched 🔘	Matched 🔘	Matched 🔘	⋮ Options

What is the relationship between Spend and Number of Contract Id?

19.55%
$98,299 $117,517

In Oct 2022, on average, **1 in Number of Contract Id** corresponds to **$117,517 in Spend**. This ratio is 19.55% more than in Sep 2022 where 1 in Number of Contract Id lead to $98,299 in Spend.
↩ Swap ratio order

Spend divided by Number of Contract Id
1 : $98,299 ⓘ   →   1 : $117,517 ⓘ
↑ **$19,217 (19.55%) more** than before

⌄ Show Table

$6.88m
19.55%
$8.23m

The increased ratio led to **$1.35m (19.55%) more in Spend than estimated** for Oct 2022.

Estimated   →   Actual
$6.88m ⓘ   **$8.23m**

Magic Documents

Your final task is to use **Magic Documents** to create a PowerPoint presentation for the CFO, primarily focusing on cost reduction. Remember that you are presenting to an executive, so keep your presentation professional!

Answer: Audience = CFO, Objective = Reduce spend, Tone of voice = professional
To get there: Select the Magic Documents tab.

Mission Summary   Magic Documents New

Documents   + New document

✕ Edit presentation   🗑

Medium

| Presentation | Email | Message |

⬤ Adjust max slide length

Audience ⓘ
👥 CFO

Objective ⓘ
◎ Reduce spend

AI-Generated business recommendations ⓘ
Include recommendations ⌄

Topic ⓘ
💡 Challenge 1 - Spend

Language
🌐 English ⌄

Tone of voice ⓘ
☺ professional