

Dynamics 365 Customer Insights

Customer Insights in a Day

Hands on Lab Guide

Module 5: PowerBI

V1.3, September 2019

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Feedback

If you have feedback relating to the Customer Insights in a Day content or assets please send to ciadfeedback@microsoft.com.

Module Five Introduction

PowerBI Extensibility

The Customer Insights PowerBI Connector enables you to use the unified data that you have unlocked through the data configuration process within Microsoft PowerBI to further analyse and uncover insight.

From customer details such as roles and locations, to communication details such as email addresses and phone numbers, to unique key performance indicators (KPIs) you might have defined using the Measures page (such as Customer Lifetime Spend or Engagement Score), many insights can be uncovered.



Note: At the time of writing the Customer Insights PowerBI Connector is in BETA. The October 2019 ([2019 Release Wave 2 Plan](#)) will build on the capability of this connector including templates, get-data experience and performance.).

Objectives

- Connect PowerBI to Customer Insights
- Visualise Customer Insights Data

Prerequisites

In order to complete this lab you will need to have completed

- Module 1 – Data Ingestion and Unification
- Module 2 – Dynamics 365 & Model Driven App
- Module 3 – Automation with Microsoft Flow
- Module 4 – PowerApps Greeter App
- PowerBI
- PowerBI Desktop ([Download](#))

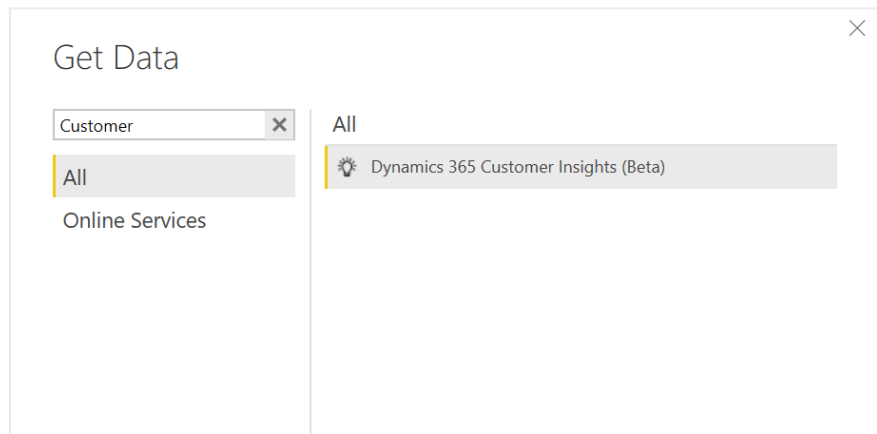
Lab 10 – PowerBI

Task 1 – Connect to Customer Insights

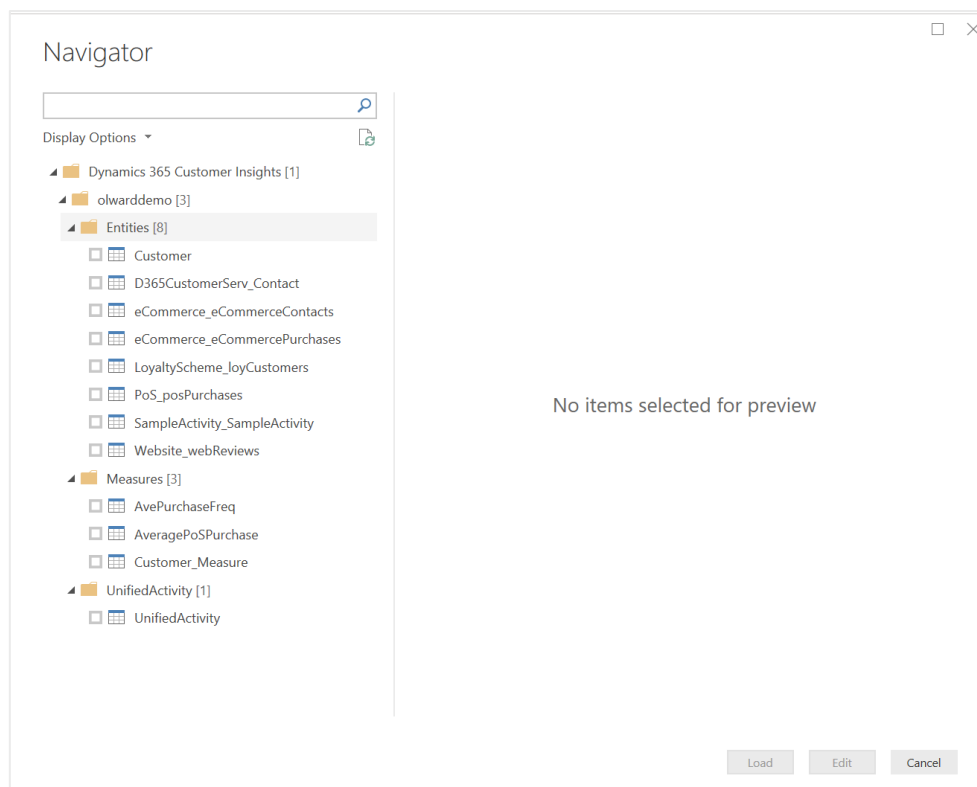
1. Obtain the CIAD PowerBI.pbix file from your module materials
2. Open the CIAD PowerBI.pbix file within PowerBI Desktop

3. Click **Get Data** and search for the **Dynamics 365 Customer Insights (Beta)** connector.

Select the connector and click **Connect**.



4. If presented with a notice, relating to connecting to Third Party Service, click **Accept**.
5. Connect to your Customer Insights instance using your credentials. Once connected, you will be presented with the **Navigator** page. Here you will see all the Entities, Measures and Unified Activity data objects that you are able to consume within PowerBI.



6. Select the following tables and then click **Load**

Measures:

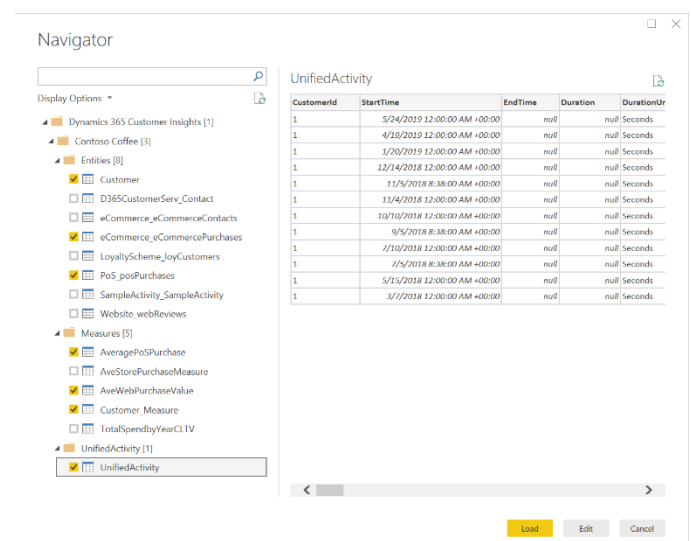
- AveragePoSPurchase
- AverageWebPurchase
- Customer_Measure

Entities:

- Customer
- eCommerce_eCommercePurchases
- PoS_posPurchases

UnifiedActivity:

- UnifiedActivity



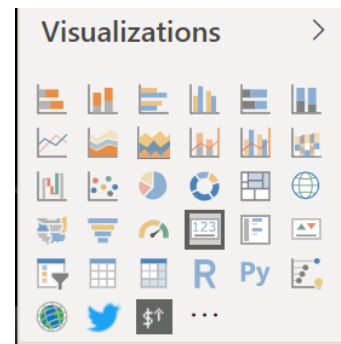
Note: Using the BETA connector, it might take a while to load the Unified Activity object

Task 3 – Add Visualisations

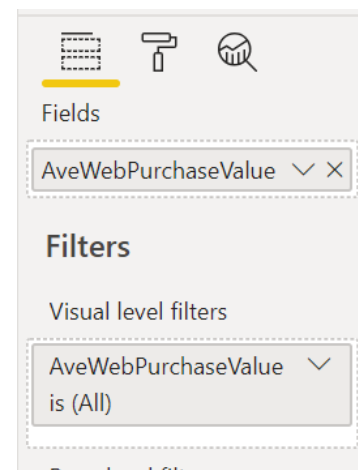
In this task, you'll add some simple visualisations to the report

Average Store and Web Purchase Values

1. Add a **Card Control** from the **Visualizations** panel to the left side of the report.

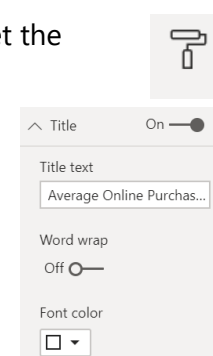


2. With the Card Control selected, **Fields**, drag or select '**AveWebPurchaseValue**' from '**AveWebPurchaseValue**'.



3. With the card control selected, click the **Format** button and set the following properties:

- **Data Label : Colour : White**
- **Title: Title Text: "Average Online Purchase" (\$)**
- **Title: Font Colour: White**



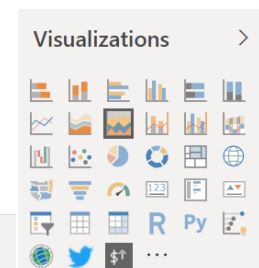
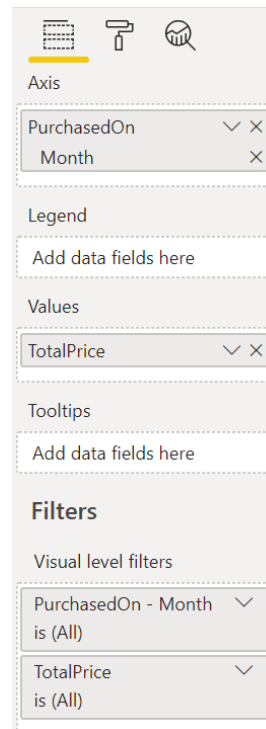
4. Select the Data Card, displaying 'Average Online Purchase (\$)' that you've just created and copy and paste another data card onto the Canvas.
 - Update the title to **Average in Store Purchase (\$)**
 - Update the value to '**AveragePoSPurchase**' from '**AveragePoSPurchase**'.

Store + Web Purchases by Month

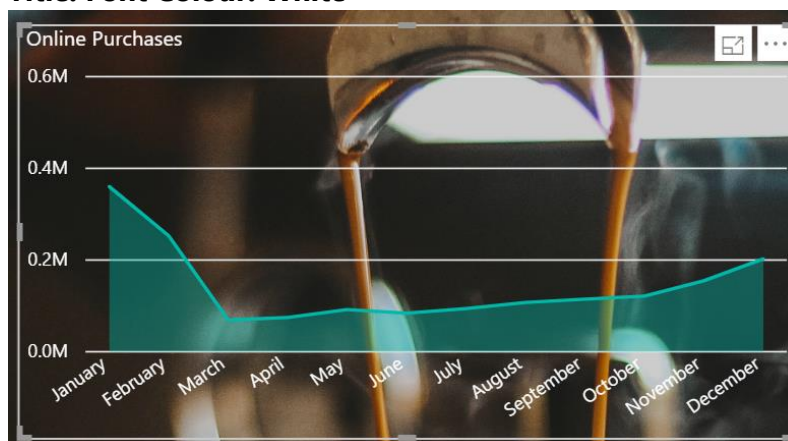
Contoso Coffee want to look for seasonality within their sales figures for both online and in-store sales.

1. Add a **Stacked Area Chart** from the **Visualizations** panel next to the 'Average Online Purchase (\$)' card.

2. Add the following under Fields:
 - **Axis** add **PurchasedOn (Month)** from **eCommerce_eCommercePurchases**
 - **Values** add **TotalPrice** from **eCommerce_eCommercePurchases**
 - **Filters** add **PurchasedOn - Month**



5. With the graph selected, click the **Format** button and set the following properties:
 - **X axis : Colour : White**
 - **Y axis : Colour : White**
 - **Title: Title Text: Online Purchase**
 - **Title: Font Colour: White**



6. Select the Stacked Area Chart visualization, Copy & Paste another copy.

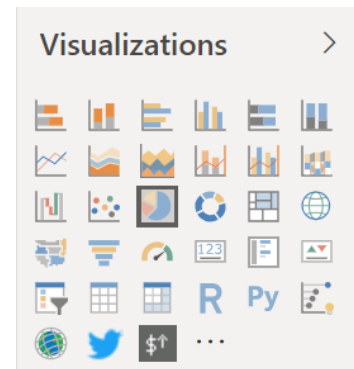
Edit the Data and formatting as follows:

- **Axis** add **PurchasedOn (Month)** from **PoS_posPurchases**
- **Values** add **TotalPrice** from **PoS_posPurchases**
- **Filters** add **PurchasedOn – Month**

7. Update the title of your new chart to '**Store Purchases (\$)**'

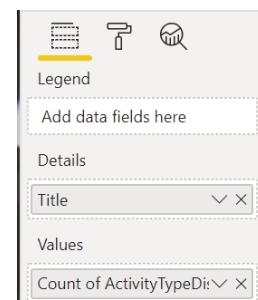
Activity Types by Volume

1. Add a Pie Chart **from** the **Visualizations** panel to the left side of the report.



1. With the Pie Chart selected, under **Fields**, drag or select the following values from the **UnifiedActivity** object.

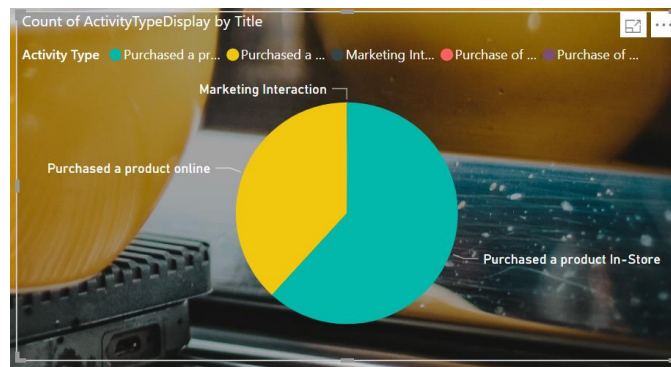
- Details: **Title**
- Values: **Count of ActivityType**



2. With the card control selected, click the **Format** button and set the following properties:

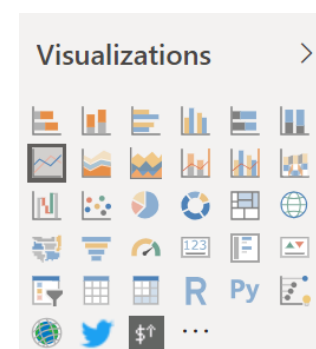
- **Legend : Title : On**
- **Legend : Color : White**
- **Data Colors : Purchased a Product Online : Yellow**
- **Title: Title Text: "**
- **Title: Font Colour: White**
- **Background: Black**
- **Background: Transparency: 80%**



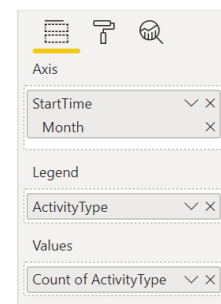


Activity Types by Month

2. Add a Line Chart **from** the **Visualizations** panel to the left side of the report.

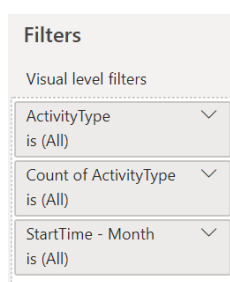


3. With the Line Chart selected, under **Fields**, drag or select the following values from the **UnifiedActivity** object.
 - Axis: **StartTime (Month)**
 - Legend (**ActivityType**)
 - Values: **Count of ActivityType**



Under **Filters** select the following:

- ActivityType (all)
- Count of ActivityType (All)
- StartTime - Month



4. With the Line Chart selected, click the **Format** button and set the following properties:
 - **Legend: On**
 - **Legend : Color : White**
 - **X axis : Color : White**
 - **Y axis : Color : White**



- **Data Colors : PoS_posPurchases : Yellow**
- **Background: Black**
- **Background: Transparency: 80%**



Task 4 – Review Dashboard

Review your PowerBI dashboard. This is simple example, pulling data from Customer Insights, further insight could be uncovered with more complex example.

This simple report highlights:

- Average Online Purchase value is higher than In Store
- There is a higher volume of In Store Purchases vs Online
- There may be some seasonal trends as sales drop around March and increase again from September.

