SAOUG CONFERENCE 2025

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HELLO AFRICA

Exploring IPM Insights & Auto Predictions

Lydia Maksoud

Oracle ACE Pro

2023, 24 & 25
GOLD WINNER

Exploring IPM Insights & Auto Predictions

Lydia Maksoud – Senior EPM Consultant, Brovanture
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November 2025

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About Me

Lydia Maksoud
Senior EPM Consultant
EPM Planning

Based in **London**

Oracle ACE Pro

About Brovanture

ORACLE | Sell Partner
Expertise in
Oracle Cloud Platform
in EMEA–Western Europe

ORACLE | Service Partner
Expertise in
Oracle Cloud EPM Financial Consolidation and Close
in EMEA–Western Europe

1st UK EPM Consultancy on PBCS Beta Program
1st Consultancy to implement PBCS
1st Consultancy to implement FCCS
1st UK Oracle Cloud Excellence Implementer – recognised by Oracle as experts in Oracle Cloud SaaS

United Kingdom | **South Africa** | **Ireland** | **United States**

Established in **2005**

40+ Oracle Certified Consultants

Customer Experience is Key

Oracle Cloud EPM Expertise certification

Winner UKOUG EPM Partner of the Year

2024, 2023 & 2019

100+ Customers

Brovanture **success** is bringing **REAL value** to our Customers

HM Government G-Cloud Supplier

CYBER ESSENTIALS

ISO9001:2015 Registered AMRC 151290923

ISO27001:2022 Registered AMRC 151290923/2

Brovanture Clients

anchor
MOUNTSTREET
Reading Borough Council — Working better with you
awaze
Landal GreenParks
EthosEnergy
EDRINGTON
Beam Suntory UK
Virgin media
Bird & Bird
English Heritage
mediacom
discoverIE
TED BAKER LONDON
McCurrach
LoneStar Group
ALE — SMARTER, SAFER, STRONGER
JM Johnson Matthey
VERTIV
Skrill
optimity
SDL
CAMELLIA PLC
Historic England
arqiva
Edif
ENRA GROUP
ASCENTIAL
WHEATSHEAF
LI & FUNG
PEEL HUNT
Department of Health & Social Care
Home Office
Foreign & Commonwealth Office
Guy's and St Thomas' NHS Foundation Trust
Ministry of Justice
national highways

Agenda

1. What is IPM?
2. Who can access IPM?
3. Why implement IPM?
4. IPM Demo

What is IPM?

Overview of IPM

IPM Overview

- Intelligent Performance Management (IPM)
- Incorporated directly into EPM Planning applications, with no separate installs required
- Purpose of IPM is to:
    1. **AutoPredict** – Provide automated predictions using Predictive Planning methods
    2. **Insights** – Analyse data and give insight into anomalies or patterns which may otherwise go unnoticed
- Schedule insight jobs to automate the above and reduce manual effort
- Increase accuracy and save time on future forecasting
- Released as part of the November 2021 (21.11) update
- New features including Events, Calendars, Tags, Summaries & Smart View

Auto-Predictions

- Automatically **predicts future periods** based on historical data in the system
- Uses the same time-series forecasting and statistical methods as **Predictive Planning**, but isn't limited to a form!
- Results of auto-predictions can be stored in a specified slice in EPM
- Used as part of generating **Prediction Insights**, for comparison to future Forecasts
- More accurate with more historic data - should be at least twice the amount of history as the number of future periods being predicted

- Optional to create auto-predictions during configuration
- Bring your own machine learning

Events

- Add context to Predictions
- Different types of events:
  - **One-off** – An event you don’t expect to be repeated, but do want to include it in the data
  - **Repeat** – An event that is regularly repeated, where increases or decreases will also be repeated, e.g. Christmas
  - **Skip** – an event you don't expect to be repeated, and don't want to include in the data. Data for Skip events is removed from the series.

Events

Actions | Add Event

Search

Calendar UK

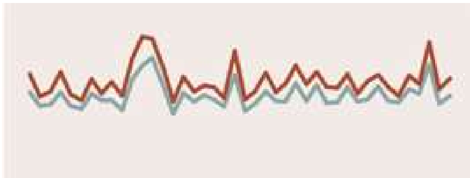
Name	Description	Type	Calendar	Starts on	Duration	Interval	Occurrences		Active	Actions
Christmas	Run up to festive peri	Repeat	UK	FY23->Dec	1	12	FY23->Dec	+	☑	✓ ✕

Types of Insight

Forecast Variance & Bias Insight

Measures variance and/or bias between two **historical** scenarios

Prediction Insight



Measures variance between two **future** scenarios

Anomaly Insight

Detects anomalies in recent **Actual** months

Insights List

List of insight details

Insights | Configure | ML Models | Tags

Insights

Search

#jul_forecast | Type Anomaly | Status Open | Priority High | More Filters

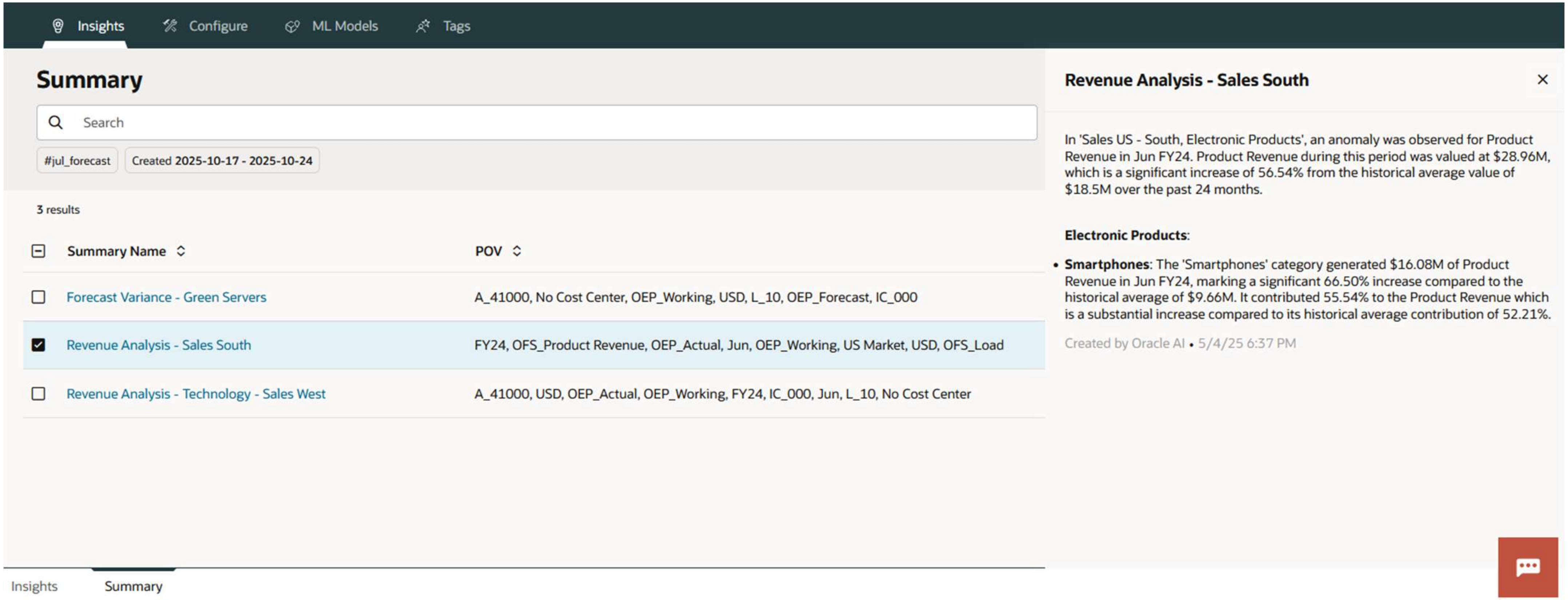
85 results

		Priority	Impact	Value	POV	Type	Details	Status	Created	Comments
☐	●	High	83.43%	$363K	Sales US - East-Ultra Notebook 13 in	Anomaly	Actual Product Revenue 90.97% lower in Jun FY24	Open	3/31/25 11:53 PM	
☐	●	High	70.80%	$398.66K	Sales US - East-Ultra Notebook 15 in	Anomaly	Actual Product Revenue 82.91% lower in Jun FY24	Open	3/31/25 11:53 PM	
☐	●	High	50.93%	$2,462	Line 2-FM IT-Base Resource	Forecast Variance & Bias	Actual Contract Revenue - Cost Plus 13.80% lower than forecast	Open	3/31/25 11:52 PM	
☐		High	49.94%	$32,780	Line 1-FM IT-Base Resource	Forecast Variance & Bias	Actual Contract Revenue - Cost Plus 12.54% lower than forecast	Open	3/31/25 11:52 PM	2
☐	●	High	52.56%	$4.38M	Sales US - East-Tablet 8 in	Anomaly	Actual Product Revenue 221.56% higher in Jun FY24	Open	3/31/25 11:53 PM	
☐		High	82.37%	$169.63K	Manufacturing US-Machinery and Equipment	Forecast Variance & Bias	Actual Capital Expenditure 19.61% higher than forecast	Open	3/31/25 11:46 PM	1
☐	●	High	32.97%	$27,376	Sales US - West	Forecast Variance & Bias	Actual Total Travel and Entertainment Expense 30.94% lower than forecast	Open	5/7/25 3:49 AM	
☐	●	High	47.60%	$157.85K	Sales US - West-273-Ultra Power Server 3000 Series	Anomaly	Actual 41000-Revenue - Domestic 64.50% lower in Jun FY24	Open	3/31/25 11:47 PM	
☐		High	40.31%	$52,460	Line 1-FM IT-Base Resource	Prediction	Predicted Contract Revenue - Cost Plus 31.98% lower than forecast	Open	3/31/25 11:52 PM	2
☐	●	High	41.08%	$7.9M	Sales US - East-Smart Phone 6 in	Anomaly	Actual Product Revenue 139.43% higher in Jun FY24	Open	3/31/25 11:53 PM	

Insights | Summary

Insights Summary

Generative AI Summary of selected Insights



Forecast Variance & Bias Insights

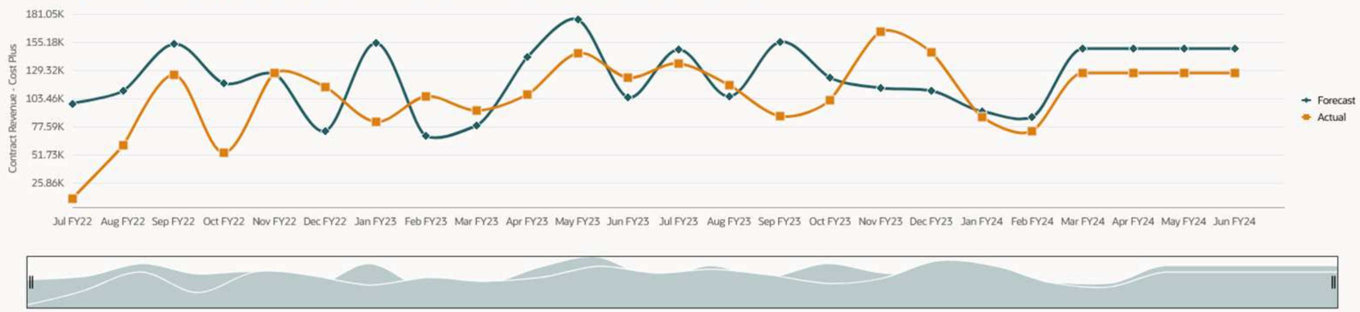
Reveals potential hidden bias in forecasts submitted by planners by analysing past data

Actual Contract Revenue - Cost Plus 12.54% lower than forecast

Forecast Variance & Bias | Line 1-FM IT-Base Resource

Cancel | Dismiss

The actual Contract Revenue - Cost Plus value for Line 1,FM IT,Base Resource for the last 2 years was 2.58M whereas the forecasted Contract Revenue - Cost Plus value for the same period was 2.95M. The actual Contract Revenue - Cost Plus values are typically 12.54% lower than the forecasted Contract Revenue - Cost Plus values.



Insights AI | Explainability | Comments 2

During the period from Jul FY22 to Jun FY24, the actual Contract Revenue - Cost Plus amounted to $2.58M, which is notably lower than the forecasted figure of $2.95M. This variance between the actual and the forecast reflects a substantial deviation, amounting to a percentage difference of 59.91% and a mean deviation of $32,780.

It is worth noting that the forecast values were significantly higher than the actual values for 5 periods under analysis, indicating over-forecasting bias.

Created by Oracle AI • 8/21/25 5:19 AM

What would you like to do?

	Jul FY22	Aug FY22	Sep FY22	Oct FY22	Nov FY22	Dec FY22	Jan FY23	Feb FY23	Mar FY23	Apr FY23	May FY23	Jun FY23	Jul FY23	Aug FY23	Sep FY23	Oct FY23	Nov FY23	Dec FY23
Forecast (OEP_Forecast)	99,406	111K	154K	118K	126K	73,856	155K	69,348	79,381	142K	177K	105K	149K	106K	156K	123K	114K	111K
Actual (OEP_Actual)	12,334	60,633	126K	54,497	128K	114K	82,184	106K	93,132	108K	146K	123K	136K	116K	87,851	102K	165K	147K

Open As Adhoc

- Analysis of data history & variances
- Context with natural language processing
- Options provided for action based on insight

Insight Explainability Panel

Additional information on each insight:

- Insights AI
- Explainability
- Comments

Insights AI | Explainability | Comments 2

During the period from Jul FY22 to Jun FY24, the actual Contract Revenue - Cost Plus amounted to $2.58M, which is notably lower than the forecasted figure of $2.95M. This variance between the actual and the forecast reflects a substantial deviation, amounting to a percentage difference of 59.91% and a mean deviation of $32,780.

It is worth noting that the forecast values were significantly higher than the actual values for 5 periods under analysis, indicating over-forecasting bias.

Created by Oracle AI • 8/21/25 5:19 AM

Insights AI | **Explainability** | Comments 2

Variance analysis

59.91%
Mean absolute percentage error

$32,780
Mean absolute deviation

MAPE ⓘ
Variance metric

20.00%
Threshold

Yes
Historical variance

59.91%
Metric value

49.94% ⓘ
Impact (Standard variance)

Bias analysis

RPD ⓘ
Bias metric

40.00%
Threshold

Insights AI | Explainability | **Comments** 2

Enter Comments

8/21/25 5:19 AM

Amy.Marlin
There are delays in milestone signoff as well resource level availability for contractual fulfilment. This #risk mitigation options are being discussed in #bu_review meetings. We will highlight this in #jun_mbr as well. As with #jul_forecast we are still in discussion internally.

8/21/25 5:19 AM

Henry
@Amy.Marlin - What is the reason for this variance? This impacts the overall #forecastaccuracy for #jun_forecast What are the measures required to improve in #jul_forecast ? Is there any #risk that needs to be highlighted in #jun_mbr review meeting?

Prediction Insights

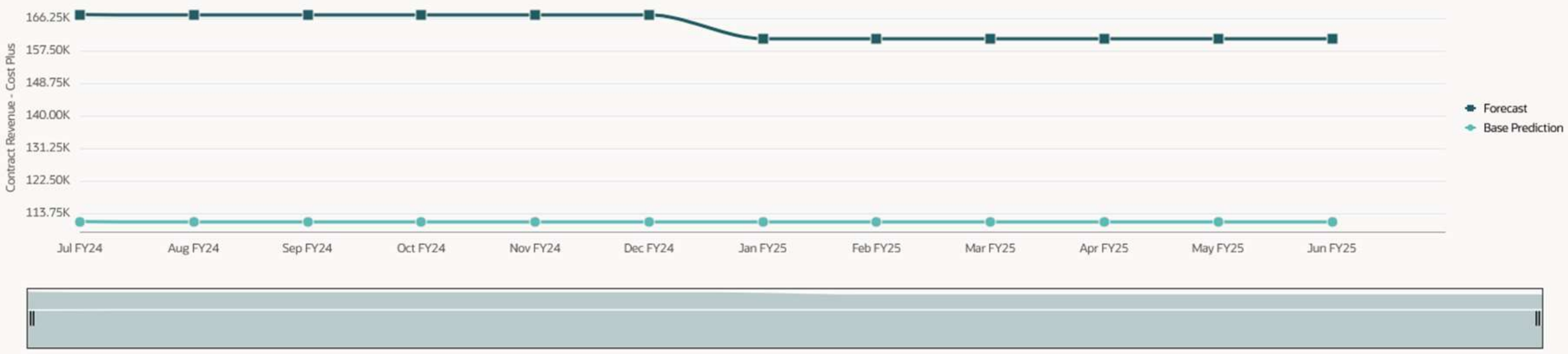
Analyses variances between predicted scenarios such as forecasts and computer-generated projections

Predicted Contract Revenue - Cost Plus 31.98% lower than forecast

Prediction | Line 1-FM IT-Base Resource

Cancel | Dismiss

The Contract Revenue - Cost Plus predicted value for Line 1,FM IT,Base Resource for the next 12 periods is 1.34M whereas the forecasted Contract Revenue - Cost Plus value for the same period is 1.97M. The predicted Contract Revenue - Cost Plus values are typically 31.98% lower than the forecasted Contract Revenue - Cost Plus values.



Insights AI | Explainability | Comments 2

The sum of predicted Contract Revenue - Cost Plus in the upcoming 12 months is anticipated to reach $1.34M, in contrast to the forecast of $1.97M. This outcome reflects a substantial variance between the forecast and the base prediction, amounting to a mean percentage difference of 47.01% and a mean absolute difference of $52,460.

Created by Oracle AI • 8/21/25 5:19 AM

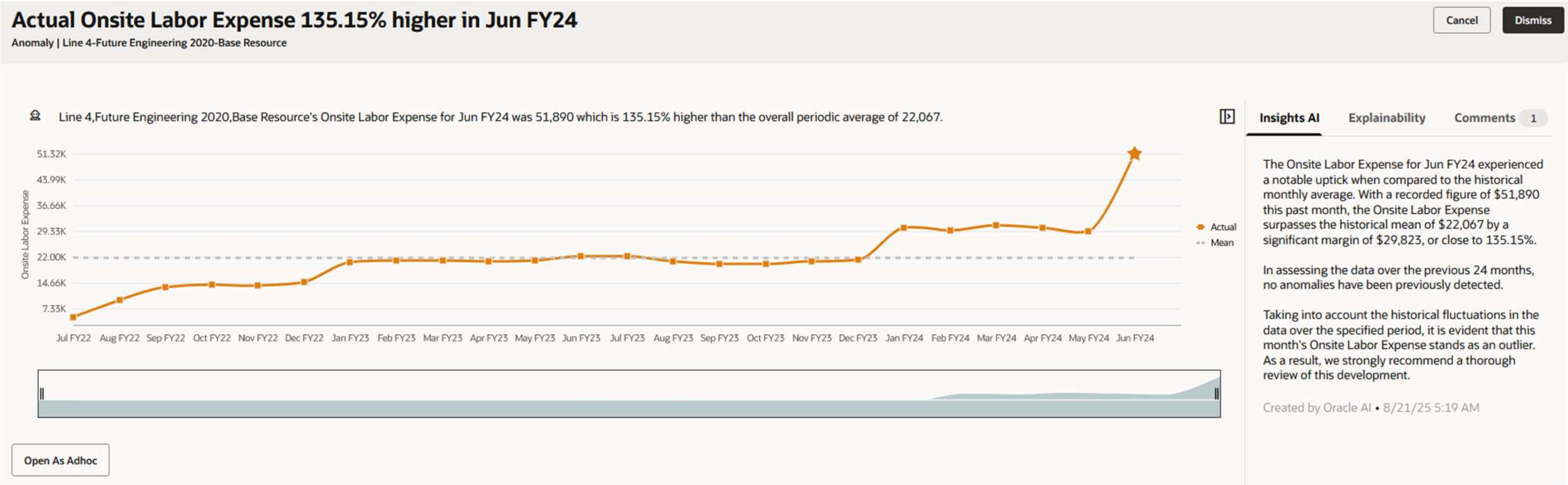
What would you like to do?

	Jul FY24	Aug FY24	Sep FY24	Oct FY24	Nov FY24	Dec FY24	Jan FY25	Feb FY25	Mar FY25	Apr FY25	May FY25	Jun FY25
Forecast (OEP_Working)	167K	167K	167K	167K	167K	167K	161K	161K	161K	161K	161K	161K
Base Prediction (Best Case)	112K	112K	112K	112K	112K	112K	112K	112K	112K	112K	112K	112K

OVERRIDE

Anomaly Insights

Identifies inconsistency in historic actuals by highlighting outlier values



Benefits of IPM

Data Quality

- Finds issues that may have otherwise gone unnoticed
- Suggests data fixes which will improve data accuracy
- Encourages users to trust quality of system data

Efficiency

- Auto-predictions reduce manual effort
- Automation of insights cuts down manual tasks for validating data
- Reduces need for in-depth data analysis prior to reporting

Collaboration

- Provide common store of historical biases or areas of insight
- Encourages conversation around specific data points, rather than whole data sets

Who can access IPM?

Licensing support for IPM

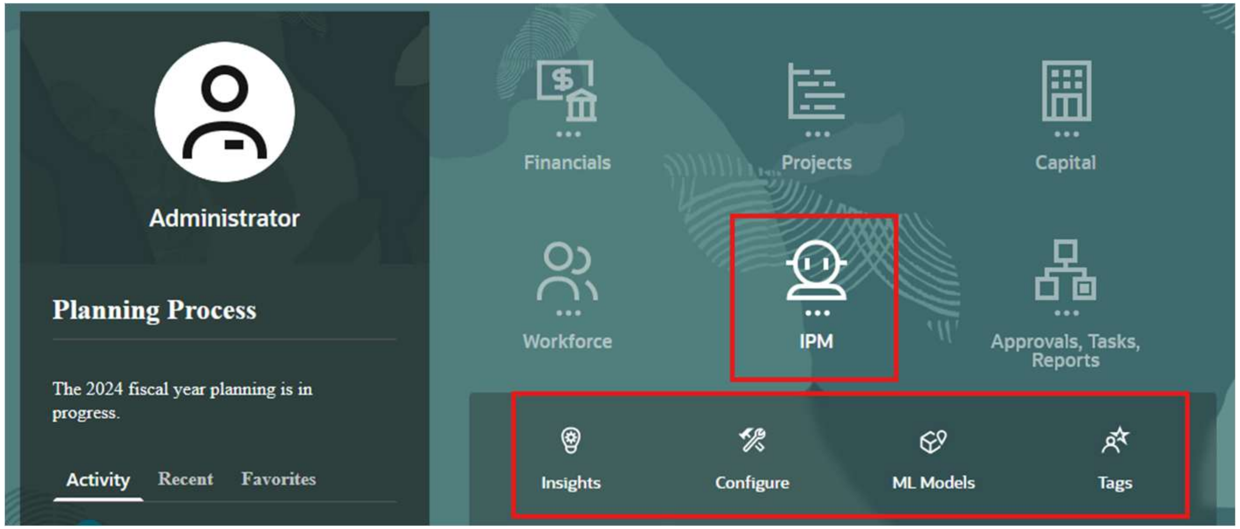
IPM Availability Matrix

SKU	Business Process	App Type	IPM Availability	Comments
EPM Enterprise	**Planning**	Modules	Supported	Hybrid Required
		Custom	Supported	Hybrid Required
		Free Form	Supported	Hybrid Required
		Cash Forecasting	Supported	Hybrid Required
	Financial Consolidation and Close		Supported	Hybrid Required
	Enterprise Profitability and Cost Mgmt		Supported	Hybrid Required
	Tax Reporting		Supported	Hybrid Required
	Other Business Processes		Not Supported	
Legacy SKU	Planning	EPBCS	Not Supported	
		PBCS	Not Supported	
EPM Standard	Planning	Standard Module	Not Supported	

Source: https://docs.oracle.com/en/cloud/saas/planning-budgeting-cloud/pfusa/insights_considerations.html

IPM Insights via Web

Released as part of the 21.11 update in November 2021. If applicable to your SKU, the IPM icon will automatically be included on your navigation flow, as below:



The IPM cluster consists of:

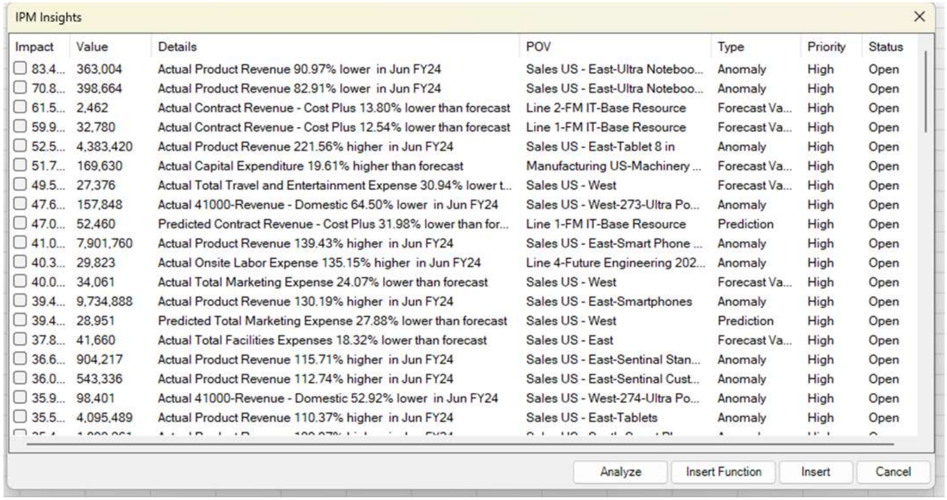
- **Insights** – the dashboard which will display insights for planners
- **Configure** – for administrators to setup new prediction/insight functionality
- **ML Models** – allows admins to setup a custom machine learning model
- **Tags** – administer & manage available tags for insights

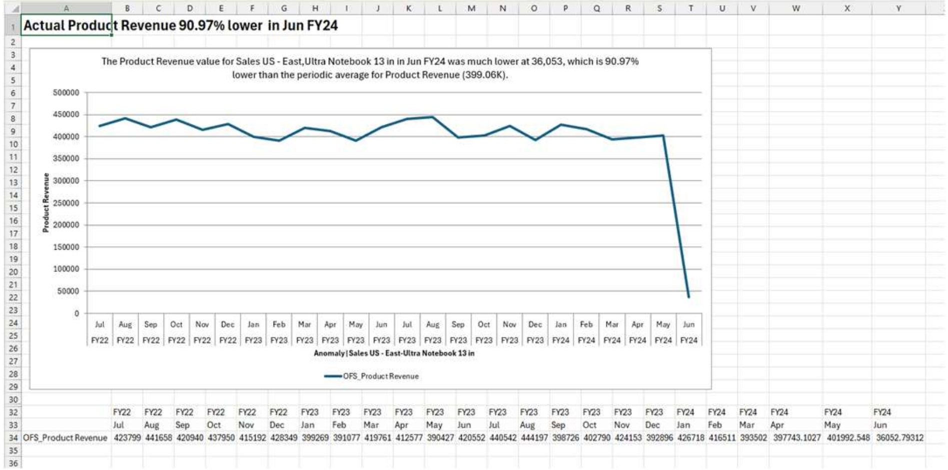
IPM Insights via Excel Smart View

Smart View version **25.100** was released as part of the 25.04 update in April 2025, which enables use of IPM insights via Smart View in Excel.

Able to view list of insights, then perform the following:

1. **Analyse** a particular insight (tick one) – will open a new ad hoc grid containing the insight data for analysis
2. **Insert Function** (tick one) – will create a HsGetInsight function for the selected insight
3. **Insert** into a sheet (tick one or more) – will insert a static view of the insight information, including a visual graph and grid, as shown in the web interface

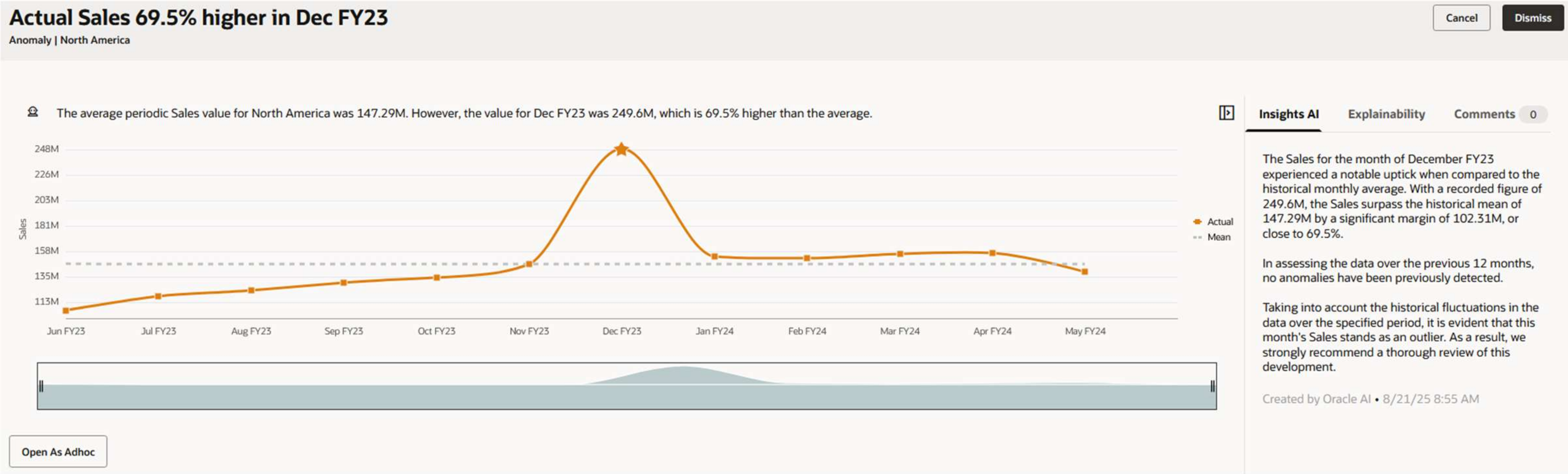




IPM in FCC

IPM insights available in FCC since July (25.07) patch
Only 1 insight type available – **Anomaly!**

Learn more about FCC at **4pm today !**
Streamlined Consolidation: See the Connected Close in Action
Sarah Dow & Kim Kannemeyer



Why implement IPM?

Benefits of IPM

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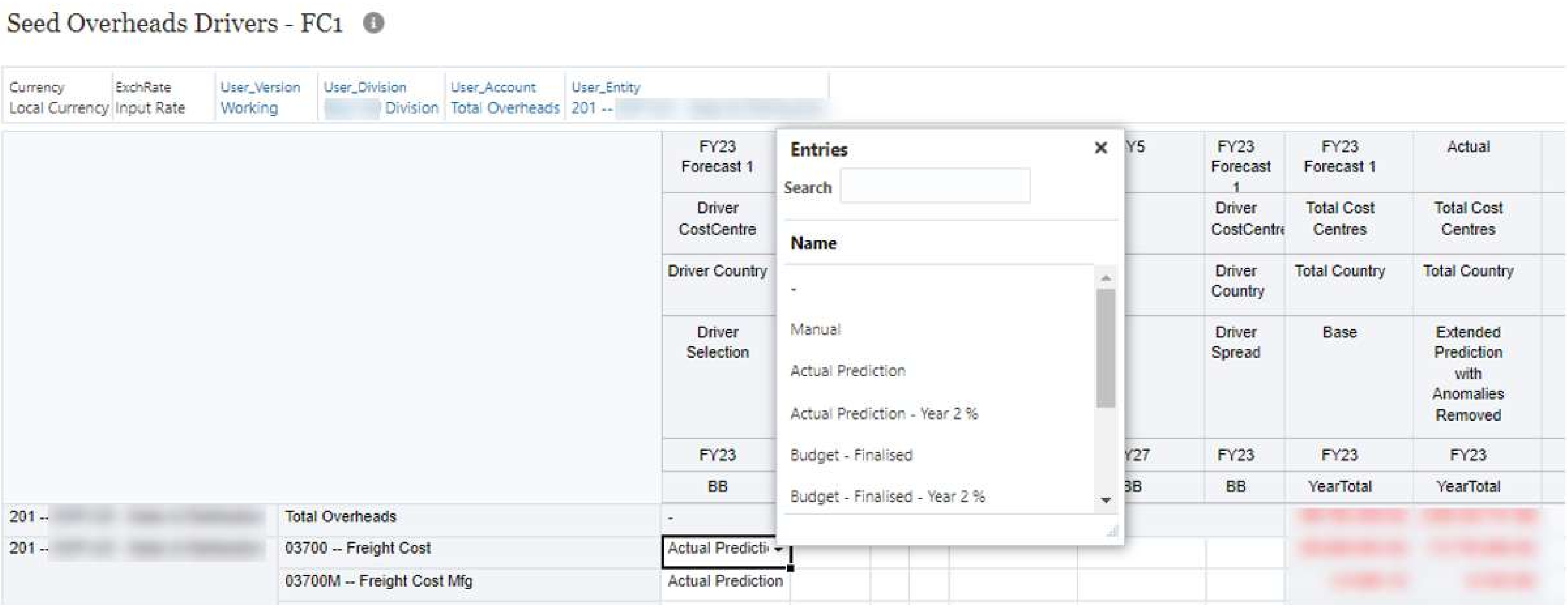
Why implement Auto Predict?

To produce future predictions based on latest set of historic Actuals, aiming to reduce overall manual forecasting effort

- Large Data sets
- Not limited to running on a form
- Prediction scenario for comparison to Forecast
- Pre-fill base Forecast
- Scheduled

Example Use Case - Auto Predict Driver

- IPM auto-prediction data can be surfaced on forms for users to review
- This data can then be referenced using a smart list driver



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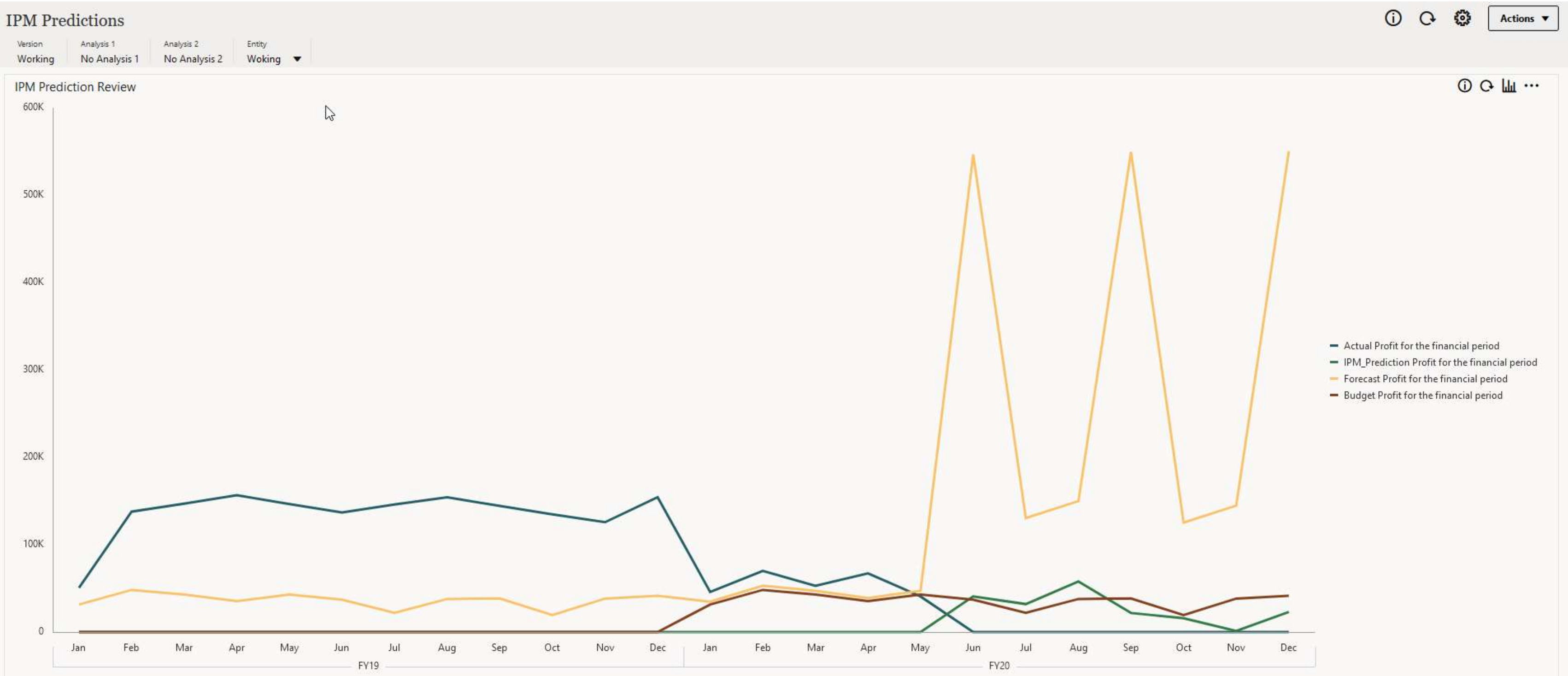
Example Use Case – Comparison

- Compare the IPM Auto Prediction against Actuals, Budget and Forecasts



Prediction Report

- Download report of prediction methods used and accuracy for each combination

Run By	Job Start	Job End	Duration (minutes)	Total Series	Successful Series
Service Admin istrator	Mar 29, 2023 1:29:23 PM	Mar 29, 2023 1:29:33 PM	0.15	1347	488

	Reference Data	Base Prediction
Date Range	Jan-FY21 - Dec-FY23, (24)	Jan-FY23 - Jun-FY25, (30)
Cube	PLOSS	PLOSS
POV Dimensions		
Scenario	Actual	Actual
Version	Working	Working
Division	[illegible]	[illegible]
Currency	"Local Currency"	"Local Currency"

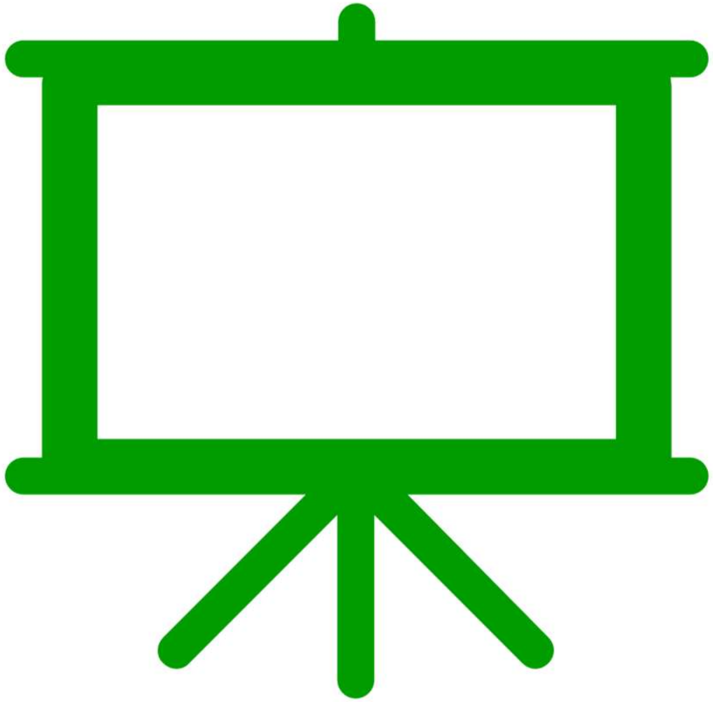
	A	B	C	D	E	F	G	H
1					Series Dimensions			
2	Status	Code	Accuracy	Method	Account	Entity	Cost Centre	Country
3	Success		82.25%	ARIMA	01000 -- Sales	400 -- [illegible]	200 -- Margin	United States
4	Error		0.00%	None	01000 -- Sales	410 -- [illegible]	000 -- Balance Sheet	Canada
5	Success		91.87%	ARIMA	01000 -- Sales	410 -- [illegible]	100 -- Commercial Margin	Canada
6	Error		0.00%	None	01000 -- Sales	420 -- [illegible]	200 -- Margin	Mexico
7	Success		28.75%	DMA	01000 -- Sales	420 -- [illegible]	000 -- Balance Sheet	Mexico
8	Success		0.00%	ARIMA	01020 -- Discounts	400 -- [illegible]	200 -- Margin	United States
9	Error		0.00%	None	01020 -- Discounts	420 -- [illegible]	200 -- Margin	Mexico
10	Success		72.25%	ARIMA	01020 -- Discounts	420 -- [illegible]	000 -- Balance Sheet	Mexico
11	Success		31.50%	ARIMA	01030 -- Intercompany Sa	400 -- [illegible]	200 -- Margin	United States
12	Success		31.50%	ARIMA	01030 -- Intercompany Sa	745 -- [illegible]	200 -- Margin	United States

Why implement IPM Insights?

Difficult to detect hidden anomalies or biases due to complex build-up of data structures, including:

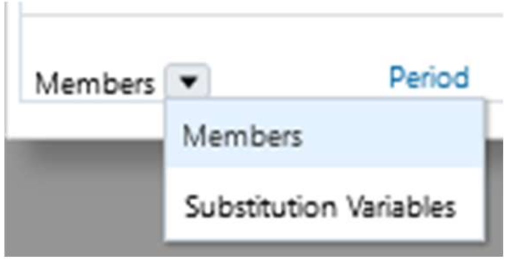
- Trends
- Seasonality
- Other (Holiday etc.)
- Residual
- Identify Events

Insights Demo

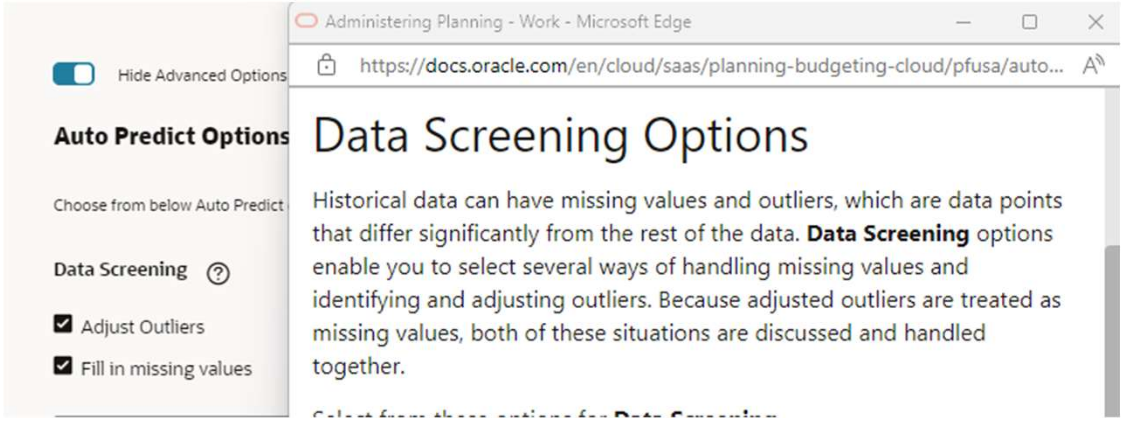


Summary & IPM Roadmap

Helpful Features



- Periods setup
  - Can use substitution variables
  - Or can use Scenario periods



- Help buttons
  - Useful to explain statistical methods
  - Very well documented
- Scheduling
  - Jobs can be automated by scheduling in job console
  - Can run via REST API
- Prediction Reports

Limitations

- Historic Data
  - Prediction results are more accurate the more historical data you have. There should be at least twice the amount of historical data as the number of prediction periods.
  - When series have less than six historical data points, Auto Predict does not use forecasting, instead it uses a straight line fit for the prediction series.

- Threshold limit
  - maximum threshold limit for the member selections when predicting

> Error 02:14 PM
>
> **Unable to load the following resource: Unable to save this artifact as Analyze cube's member selection exceeds the threshold limit. Consider redesigning the artifact by breaking Auto Predict job into multiple jobs.**

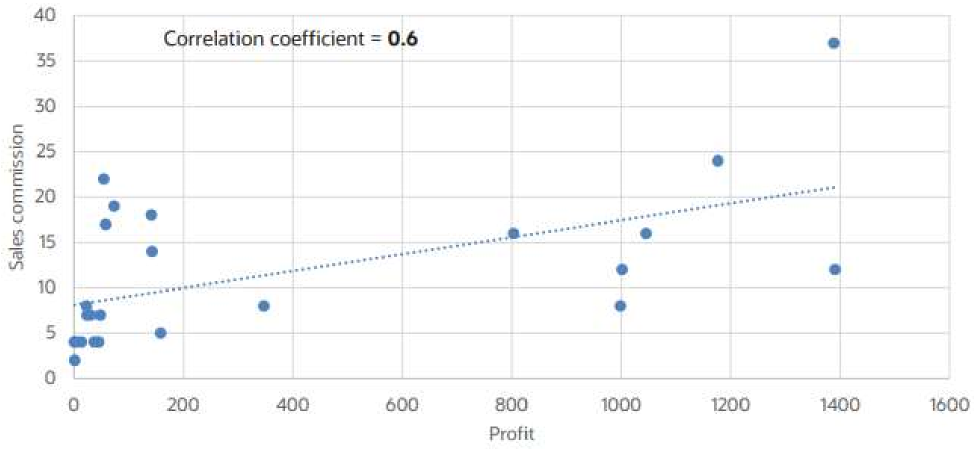
- Missing / inconsistent Values
  - Recommend using ASO upper levels for consistency

IPM Roadmap *(safe harbour)*

Expecting 2 new insight types:

1. **Correlation insight –** uses cross-correlations to determine relationships between two data series over time

2. **Price Volume Mix insight** – used to break down the change in revenue or margins into some key components: price impact, volume impact, and product mix impact



Thanks for listening!

Any questions?

Lydia.Maksoud@brovanture.com

For more info on IPM Insights:

- https://brovanture.com/intelligent-performance-management-ipm-in-the-november-2021-release-of-oracle-cloud-epm/
- https://docs.oracle.com/en/cloud/saas/planning-budgeting-cloud/pfusa/insights.html

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Exclusive content

Networking events

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