ORACLE

# How to Address Data Corrections and Optimize History Through a Time of Crisis

## PURPOSE STATEMENT

**This document provides an overview of the business challenge of data as it pertains to the shutdown of store operations in response to the current health crisis.**

## DISCLAIMER

This document, in any form, software or printed matter, contains proprietary information that is the exclusive property of Oracle. Your access to and use of this confidential material is subject to the terms and conditions of your Oracle software license and service agreement, which has been executed and with which you agree to comply. This document and information contained herein may not be disclosed, copied, reproduced, or distributed to anyone outside Oracle without the prior written consent of Oracle. This document is not part of your license agreement, nor can it be incorporated into any contractual agreement with Oracle or its subsidiaries or affiliates.

This document is for informational purposes only and is intended solely to assist you in utilizing the product features described. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described in this document remain at the sole discretion of Oracle.

Due to the nature of the product architecture, it may not be possible to safely include all features described in this document without risking significant destabilization of the code.

## DATA CORRECTION AND OPTIMIZED HISTORY

**As retailers restart their store operations, one of the issues is how to address the weeks of shutdown from a data perspective. This document is intended to provide some guidance on how to address the data corrections and optimize the history for future use.**

### BUSINESS CHALLENGE – DATA IRREGULARITIES THROUGHOUT THE SUPPLY CHAIN

Data irregularities may be due to a variety of reasons, including closed stores, panic buying stock-outs, or other break downs in the supply chain.

### CONSIDERATIONS

- How was your business been impacted? Fashion retailers will have different data needs than grocery retailers. For example, weeks of zero sales in the closed stores will require different analyses and actions than the inflated sales patterns and stock-outs that many grocers experienced.
- Which business process is impacted by the data irregularity? How to correct the data by application use, user group, and the business process must be considered.
- What was the impact on your eCommerce channel? How did this differ from your other channels? Are there learnings to be applied?

### WHERE TO BEGIN

- If you haven't done so already, document the closing/opening dates by location (and merchandise category if applicable).
- Identify shoulder weeks – where business was decreasing or increasing, but not business as usual.
- Review the eCommerce sales for demand shifts.
- Evaluate last year or previous seasons for accuracy baselines.

## OPTIMIZED HISTORY AND DATA CORRECTION SERVICES

Oracle Retail offers science-based optimized history and data correction services that provide a spectrum of analytical benefits. Oracle Retail can assist with the analysis of your data to identify the outlier data points, provide preprocessing and smoothing of the data for use in business processes, and in-depth scrutiny and analysis for additional insight recommendations.

Oracle Retail will work with you to determine the level of assistance you require based on your objectives and unique concerns.

## DATA USAGE AREAS

Data is used in all aspects of the business. Every business process is impacted by the anomalies, but the severity and solution may vary by process.

- Allocation and replenishment processes use recent history to determine inventory needs for each store, as well as longer-term forecasts to keep the supply chain moving.
    - How to adjust allocations and replenishment orders to account for the data anomalies
- Planners use data history as the basis for new plans (i.e., seeding a Merchandise Financial Plan from last year).
    - How to create plans going forward
    - Decide if using history from 2 years ago, a different calendar option or something else entirely is best
- Pricing Analysts use data history to determine markdown strategies. Slow-selling items are targeted for markdown and clearance.
    - How to adjust strategies to manage the markdown budget as well as achieve a good margin wherever possible
- Forecasting and Science Analysts use data history for their analyses.
    - How to address the data anomalies for forecasting in the next month vs. next season vs. next year

## WHAT DOES THE ORACLE RETAIL OPTIMIZED HISTORY AND DATA CORRECTION SERVICE INCLUDE?

The service offerings from Oracle Retail will be tailored to your specific needs and objectives, including correction, insights, value, and opportunity.  Here are a few examples.

### ENTRY LEVEL
Identify irregular data points, which include:
- Lower sales volume due to out-of-stock
- Any outliers due to a one-time event like weather, concert, etc.
- Extended irregular sales (either much lower or higher volumes) such as the current crisis
- Different sales patterns from earlier years to recent years when a SKU# is reused

## INTERMEDIATE LEVEL

Actions on data corrections and improvements, such as:

- Standard preprocessing methods (like in RDF)
- Use of the Science Platform and Innovation Workbench to address non-standard needs
- Data smoothing algorithms and techniques

## ADVANCED LEVEL

Insights for recommendations and actions, such as:

- Sales pattern analysis at various hierarchy levels
- Regression analysis of sales volume and promo events using R or Excel
    - Use case: Help determine what promo events should be designed and configured in RDF
    - Use case: Help determine how to pool the promo events together to utilize the pooling level in RDF better
- Sales revenue/profit analysis by location and by planogram
    - Use case: Help suggest to the customers whether to optimize by store or space clusters
- Correlation analysis between sales and attributes at a few higher product levels
    - Use case: Help decide which product level to run demand transference
- Sales and customer segment analysis to identify how customer behaviors have shifted based on product availability
- Sales analysis of eCommerce vs. store locations by customer segment to identify future trends

**The Oracle Retail team is here to help and is standing by its customers and solutions during these difficult and challenging times. If you have any questions regarding this service or the Retail Science platform, please feel free to email us at retail-central-consulting_ww@oracle.com and one of our specialists will be in contact with you.**

## CONNECT WITH US

Call +1.800.ORACLE1 or visit oracle.com.
Outside North America, find your local office at oracle.com/contact.

blogs.oracle.com/retail          facebook.com/oracleretail          twitter.com/oracleretail