



Webinar series AML Transformation

# Find new insights in financial crime analytics

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Financial Crime Analytics



# Analytics can help you shape your financial crime program toward greater efficiency and effectiveness.



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# Learning objectives

- 1 Analyze current challenges presented by changing risk profiles and high false positive rates, and how a financial crime program can benefit from investments in analytics.
- 2 Provide a high-level overview and explanation of ongoing analytics approaches, tools, and data visualization techniques.
- 3 Assess your financial crime program's data analytics challenges and evaluate how to turn them into opportunities.
- 4 Assess whether your financial crime program is ready for the first or next step in deployment of advanced technologies like machine learning or advanced customer segmentation model development.

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# Panel discussion topics

- 1 Financial crime program challenges
- 2 Application of analytics in financial crime
- 3 Ongoing analytics approaches and their benefits
- 4 How to get started today

**Identifying key challenges  
financial institutions face  
in managing FC programs**



# Many factors can make the effort to fight financial crime more challenging.

## Changing risk profile

- Mergers and acquisitions
- New products and services
- New geographies
- Regulatory scrutiny

## Data

- Growing complex dataset
- Data quality
- Data integrity
- Multiple monitoring systems

## FIU resources

- Service Level Agreements (SLAs)
- Productivity
- Quality Control (QC)

## Detection/prioritization

- Large volume of false positives
- Review priority
- Tuning



# **Analytics and its benefits**

# What *is* analytics?

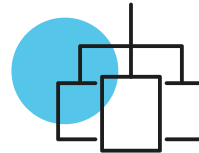
Analysis that enables us to drive insights from data to make better business decisions.



## **Analysis for interpretation of meaningful patterns in data**

“Analytics is the systematic computational analysis of data or statistics. It is used for the discovery, interpretation, and communication of meaningful patterns in data. [...] Organizations may apply analytics to business data to describe, predict, and improve business performance.”

Source: [Google](#)



## **Scientific process of discovering meaningful patterns**

“Analytics is the scientific process of discovering and communicating the meaningful patterns which can be found in data. It is concerned with turning raw data into insight for making better decisions.”

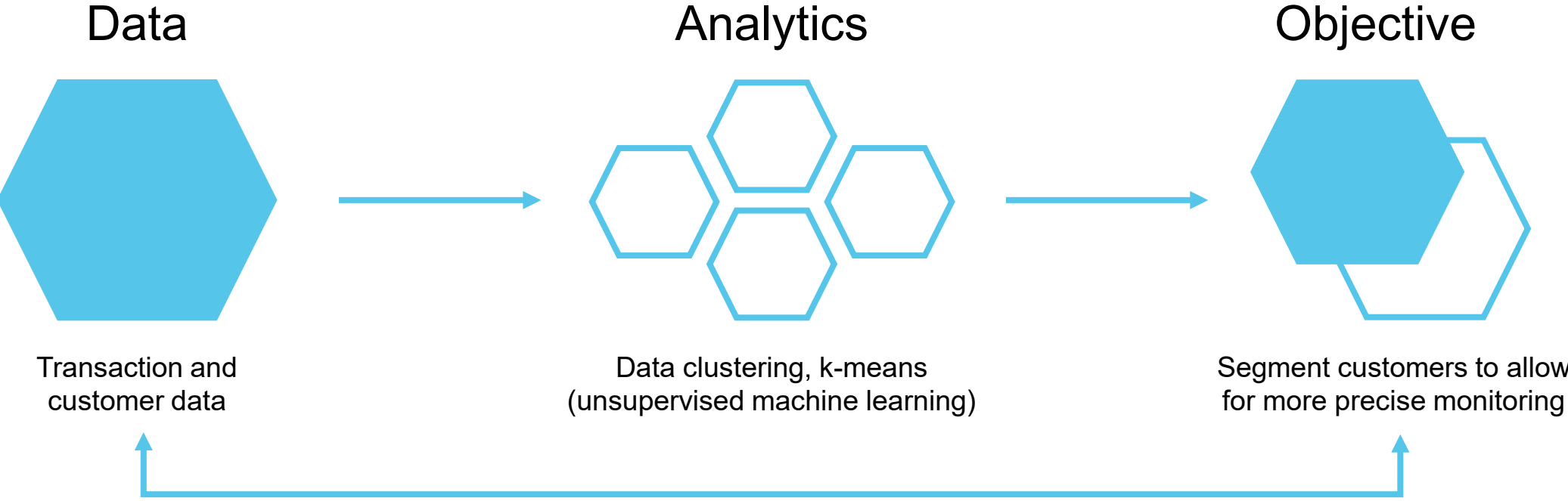
Source: [Techopedia](#)



# Applying analytics within a financial crime program



# Using analytics can help achieve your program's objectives.



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 ***Using a data-driven approach will enable your program's objectives.***



## Use cases for application of analytics

# Analytics techniques: data visualization

## What do I need to know from my data?

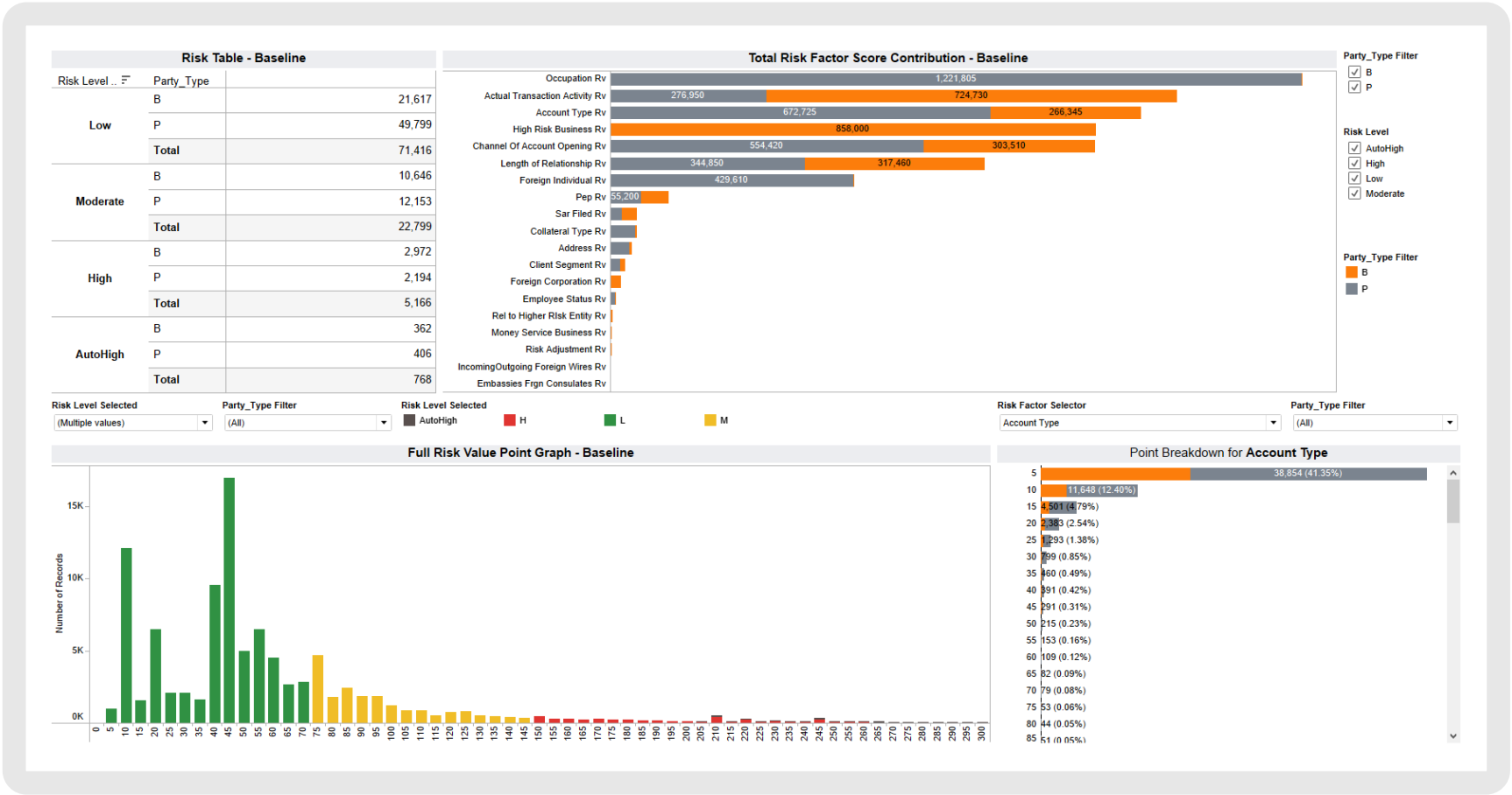
A smart, graphical representation of data should provide meaningful insights if you accounted for:

- Purpose of the visualization
- Right type of visual
- Right data points
- Quality and structure of your data

## Advanced data visualization techniques:

- Data aggregation
- Interactive data visualization
- Dynamic data
- Network analysis
- Built-in calculations
- Big data visualization tools:
  - Google Charts
  - Tableau
  - Microsoft Power BI™
  - D3.js
  - Datawrapper
  - Databox

# Data can be visualized to support a customer risk rating methodology.



## Benefit from data visualization:

- > KYC data can be visualized to better understand customer behavior.
- > Ongoing data flow in visualizations can provide risk rating calibration insights.
- > EDD reviews can be better prioritized and planned.

# Analytics techniques:

## Data clustering

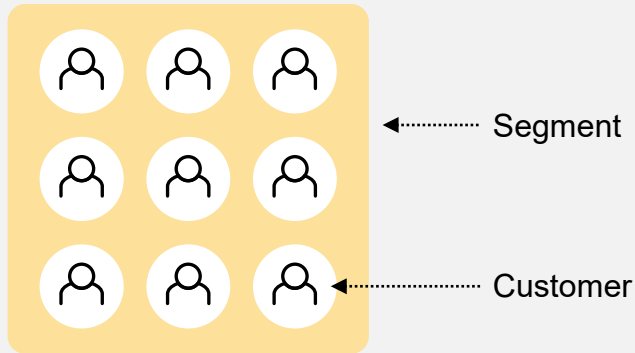
### *What is data clustering?*

Data clustering is grouping a set of data points in such a way that data points within each group are more similar to each other than to those in other groups.

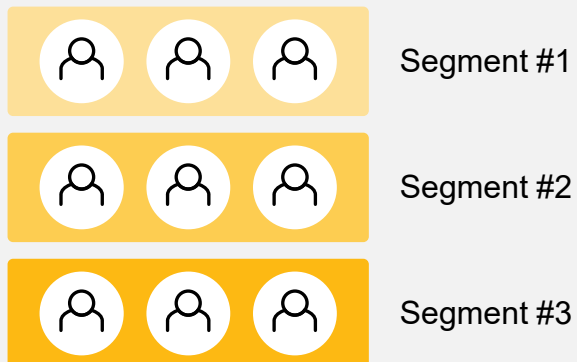
### **Customer segmentation**

Data clustering is used in financial crime when grouping customers based on similar characteristics. For example, business customers vs. individuals.

# Risk-based data insights can be gained from segmentation.



Customer segments



## Benefit from data clustering

Insights gained from a segmentation exercise can allow you to set more targeted thresholds and get higher quality alerts as a result of a deeper understanding of customer groups that behave similarly.

## Top-down segmentation

Uses customer attribute information, known as customer reference data, to determine customer clusters.

## Bottom-up segmentation

Uses customer activity data to further cluster customers based on similar transaction behavior such as wire, cash, check, and automated clearing house transaction.

# Analytics techniques: Prescriptive analysis

## Know **when** to tune.

When to tune can be determined through changes in triggers such as alert/case yield, case/SAR yield, alert volume change, high-risk customer distribution, etc.

## Know **what** to tune.

When each of the triggers is defined, changes will alert you to conduct tuning and even specify what type of tuning is required: above-the-line or below-the-line, based on the institution's risk tolerance.



# Ongoing monitoring of triggers and rules-based analysis could operationalize tuning.

## Benefit from prescriptive analysis:

Historical data from decisioned alerts can be used to identify key metrics for ongoing monitoring. Creating rules around metric changes will drive tuning efficiency and timeline, resource forecasting, productivity performance and more.

| Agent                                 | Total alerts | Completed alerts | Acknowledged alerts | Investigated alerts | Investigated not suspicious rate | Investigated suspicious rate | Invest SAR alert | Scenario rate | False positive rate | Case yield rate | SAR yield rate |
|---------------------------------------|--------------|------------------|---------------------|---------------------|----------------------------------|------------------------------|------------------|---------------|---------------------|-----------------|----------------|
| Transfer In – Cash Out – Person       | 640          | 546              | 512                 | 34                  | 1.47%                            | 4.21%                        | 21               | 21.19%        | 93.77%              | 6.23%           | 3.85%          |
| Withdrawal Structuring – Low Volume   | 476          | 417              | 384                 | 33                  | 1.20%                            | 6.47%                        | 23               | 15.76%        | 92.09%              | 7.91%           | 5.52%          |
| Cash In – Transfer Out – Person       | 374          | 368              | 347                 | 21                  | 1.09%                            | 4.62%                        | 15               | 12.38%        | 94.29%              | 5.71%           | 4.08%          |
| Cash In – Transfer Out – Business     | 357          | 322              | 315                 | 7                   | 0.31%                            | 1.86%                        | 6                | 11.82%        | 97.83%              | 2.17%           | 1.86%          |
| Deposit Structuring – Low Volume      | 295          | 272              | 250                 | 22                  | 0.37%                            | 7.72%                        | 19               | 9.77%         | 91.91%              | 8.09%           | 6.99%          |
| Transfer In – Transfer Out – Business | 216          | 204              | 203                 | 1                   | 0.49%                            |                              |                  | 7.15%         | 99.51%              | 0.49%           | 0.00%          |
| Risky Person                          | 112          | 112              | 109                 | 3                   | 1.79%                            |                              | 2                | 3.71%         | 97.32%              | 2.68%           | 1.79%          |
| Unusual Activity Referral – AML       | 95           | 94               | 1                   | 93                  | 24.47%                           | 12.77%                       | 25               | 3.15%         | 1.06%               | 98.94%          | 26.60%         |

Above the line tuning    Below the line tuning

# Getting started with data analytics today



# Financial crime analytics saves time and money.

Here are things you can do today.

1

## Outline FC goals and why to introduce analytics

- What are key objectives you are looking to achieve with your FC program?

2

## Learn more about your data and its availability

- Which data sources is your data coming from?
- What type of data is available?
- What is your institution's data quality?

3

## Reassess your existing capabilities

- Are spreadsheets a tool you can start with, or do you need something more sophisticated?
- Can you leverage your existing team if you don't have data scientists?

4

## Complement financial crime SME with quantitative analysis

- Are you finding new insights through quantitative analysis with data already available to you?



Smart decisions. Lasting value.™

# Thank you.

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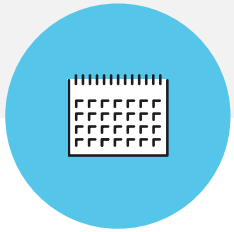
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Transforming your financial crime challenges into opportunities

# Upcoming webinars in the series



## **Cannabis**

Nov. 2, 2022, 1 p.m. Eastern

Discuss the continuing influences the growing cannabis industry is having on risk and regulations.

## **Automation/Outsourced Review Services**

Feb. 8, 2023, 1 p.m. Eastern

Explore ways in which automation and outsourced services can increase efficiency and reduce risk in a financial crime program.