

White Paper Series A/B Testing Overview

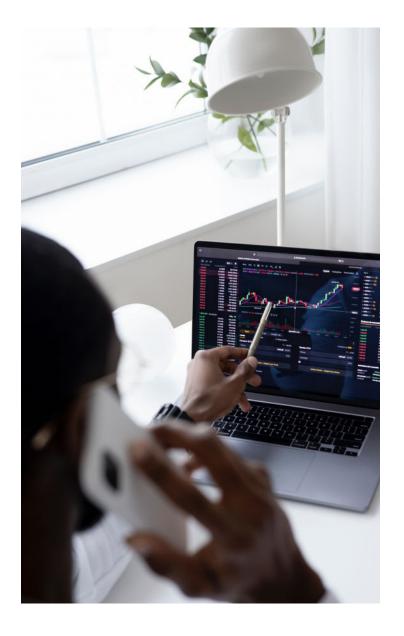
# Unlock the value of your data with A/B testing

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## **Introduction**

### You know all that data you've been gathering? It's time to turn it into intelligent insights.

If you are like many brick-and-mortar retailers, you've been investing in a data lake, stockpiling terabyte after terabyte. Now what are you going to do with it? How can it continue to prove its worth across your organization?

With A/B testing, data undergoes a journey that begins with a mound of transaction-level data and ends with actionable insights. By comparing an altered group A against a control group B, A/B testing enables you to know - with confidence and in remarkable detail - what will succeed before you roll out a new strategy.

## Give your data white-glove treatment

#### The data organizing process is an essential first step in extracting meaningful insights from the often messy and unstructured transaction data generated by businesses.

Point-of-sale data is the lifeblood of A/B testing for retailers, but the more data you have, the more unwieldy it can be.

Think of it this way: data enables you to really "see" your customer and the opportunities to expand your relationship with them. But more data can blur that vision if you aren't able to focus on what's most relevant to them (and you) in the moment.

At MarketDial, we give your data white-glove treatment, collecting and standardizing it in a highly disciplined manner that provides the foundation for accurate analysis. That way, regardless of what is being tested, the outcomes can be reliably repeated no matter who is doing the experimentation.

### Proficiency in cleaning data is a pivotal component of test-and-learn analytics capabilities. Clean data helps:

- Ensure that the information used in your A/B test accurately represents the real-world transactions.
- Identify and rectify issues like duplicate records, data corruption, or data entry errors that could compromise the accuracy of results.
- Mitigate biases and make results more reliable.

# **Rely on automation for test design**

# When the only constant in the retail industry is change, it's essential to have a progressive, agile, automated test and learn platform for setting up solid test parameters.

Achieving high confidence with testing is critical for your data to provide a reliable source of truth. Are you confident in your current testing methodology?

- How certain are you in your statistical models? Is there scientific rigor behind your sample selection, control selection, and test duration?
- How vulnerable is the data to bias or manipulation, depending on a stakeholder's point of view?
- ♦ What checks are in place to validate the results?

Your decision makers are staking their reputations on the testing; they need to be able to trust the numbers. Spreadsheet-based tests take extensive time and allow for man-made errors. But machine-learning algorithms enable modern software to generate much of this modeling accurately, within minutes.

Agile platforms also recognize that each company's approach to data is unique and can adapt accordingly. Without this agility, static programming can quickly become outdated in the fast-paced retail industry.





# Identify impacts

Once a test has been set up and implemented, the results can be analyzed for deeper decision-making insights.

Knowing that a test produced a certain outcome is useful. But knowing why it produced that outcome is even more useful. What demographics impacted sales lift? Does it make sense to roll out the initiative fleetwide or only within certain demographics? What items were frequently purchased together?

Questions such as these empower retailers to know the best way forward. Sales summaries give you some insights, but dimensionalizing your dating using sophisticated analyses reveals opportunities: What SKUs sell on Tuesday more than Sunday? At 8 a.m. vs. 8 p.m.? What influences one region over another or a larger store over a smaller footprint?

A strong test-and-learn platform will not only automate the science behind test set up, it will automate post-test analyses, allowing you to easily quantify the answers generated from the test data.

# **Empower data access across your organization**

### Making data more accessible starts with making it highly useful enterprise wide.

The democratization of data within an organization means leveraging tools to provide accurate and efficient access to data for both technical and non-technical analysts, creating teams with analytically-oriented business leaders who can ask the right questions.

Ensure your test-and-learn platform enables easy data sharing and user-friendly interpretation. While many companies still prefer to have data scientists manage the test process, most companies want easier access to and the ability to understand the results simultaneously. Additionally, many companies are finding it opportune to expand test-and-learn capabilities to multiple users. The more user-friendly the software, the more accessible the learnings to all decision-makers.

# Align around shareable results

IDC Retail Insights emphasizes the need for the democratization of data; improving analytics isn't about adding more analysts and teams, it's about improving access to data for everyone in the organization.

# Make informed decisions with actionable insights

# Drive decisions with reliably robust, intentionally easy A/B experimentation. When you know something will succeed, fail, or remain neutral, you can implement it, scrap it, or iterate on it efficiently.

If you've ever questioned the need for all the data you've been gathering, MarketDial gives you the answers you seek. The user-friendly platform allows anyone to ask and answer their business-critical questions with an objective approach, amplifying the value of your data across your organization. When everyone is on the same page, with data backing their decisions, the organization has the tools to succeed at a unified, rapid pace.

You can expand your ROI by enabling your teams to test rapidly, regularly, and precisely - making your entire organization and your decisions data-proven.

# Why MarketDial?

MarketDial helps retailers achieve confidence in their decisions by automating the data science needed for rigorous A/B testing in physical retail. The MarketDial platform is user-friendly, generating robust insights to extract a source of truth faster, with support that is championed by a customer success team who helps retailers truly succeed. MarketDial cost-effectively empowers every retailer who needs to know, "What if?"

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Johnny is a data scientist at his core, with a background as a management consultant with McKinsey & Company. In that role, he helped executives from retail partners address pressing challenges including: marketing, strategy, commercial transformation, operations, organization, big data, and advanced analytics. Johnny has degrees from Brigham Young University in Economics, Business Strategy, and Visual Arts. When Johnny is not working with data, he can often be found spending time with his children or in the mountains prepping for an upcoming endurance race, mountain climbing, or skiing.