

TECH & AI CASE STUDY - RETAIL CHAIN - 2025

BI Modernization That Replaced 60 Dashboards With Self-Serve

Based on a delivery engagement with Maplecrest Markets

60

LEGACY DASHBOARDS RETIRED

-85%

REPORT BACKLOG

**3 weeks to same
day**

TIME TO ANSWER

72%

SELF-SERVE QUERY SHARE

A fillable practice edition: the full story, 8 actions,
6 reflections and a 90-day plan - work it with your team.

Free - no email required
emersontechnology.com

MAKE THIS PRACTICE BOOK YOURS

Work it, do not just read it

This practice book turns the Maplecrest Markets case study into a working session for your team. Read the full story first - what happened, what was built and what it changed. Then tick the 8 actions you can commit to, write short answers to the 6 reflections, and finish with a 90-day plan. Every field in this PDF is fillable: open it in Adobe Acrobat Reader, Chrome, Edge or macOS Preview, type directly into the boxes and save.

YOUR NAME

ROLE

COMPANY

TEAM / DEPARTMENT

DATE

EMAIL (OPTIONAL)

MY GOAL FOR THIS PRACTICE SESSION

- 01

The story - What happened at Maplecrest Markets - before, during and after the project.
- 02

The results - The numbers that changed, plus industry benchmarks from public research.
- 03

The 8-action checklist - Tick boxes as your organization completes each step. Owner and date fields included.
- 04

The 6 reflections - Fillable questions that pressure-test your own roadmap.
- 05

My 90-day plan - Three fillable phase cards that turn this case study into your roadmap.

RUN IT AS A 90-MINUTE TEAM SESSION

25 min READ Read the story together. Ask everyone to note the one number that surprised them most.	40 min PRACTICE Work the 8-action checklist and the 6 reflections. Assign an owner and a date to every action you commit to.	25 min COMMIT Fill in the 90-day plan. One goal per phase, one number that tells you it worked. Book a review date before you leave the room.
--	--	---

THE STORY

What happened, and why it worked

01 The Company

Maplecrest Markets is a regional grocery chain operating 210 stores across three neighboring states, supported by a distribution center, a merchandising office and a central operations team. The company runs a classic high-frequency, low-margin model: thousands of weekly ad cycles, category promotions, seasonal resets and a vendor-funded trade program that all depend on knowing exactly what sold, at what margin, in which stores, last week. Roughly speaking, if the merchandising team is wrong about a category's performance, the error shows up in the P&L within a month.

The analytics footprint reflects that scale. A four-person BI team serves merchants, category managers, store operations, supply chain and finance, and over roughly a decade the business accumulated 60 departmental dashboards covering everything from daily sales to shrink. On paper that sounds like a mature analytics culture. In practice, as leadership eventually conceded, most of those dashboards were monuments to decisions that had left the building years ago.

02 Where Things Stood

The 60 dashboards had been built by many hands over ten years, and a large share of their original authors had departed. Nobody dared to delete them, because nobody could prove which ones were still feeding a weekly meeting somewhere. Worse, several dashboards purported to answer the same question — most notoriously same-store sales — and disagreed with each other because each had its own definition of store openings, closures and calendar shifts. Two versions of the same headline number circulated in every merchandising meeting, and the merchandising VP admitted openly that trust in the numbers had collapsed.

Access ran through tickets. A merchant who wanted to know how a promotion performed in a region filed a request and waited, sometimes up to three weeks, while the four-person BI team churned through a 200-item backlog. By the time the answer arrived, the promotion had ended, the next one had launched, and the analysis described a world that no longer existed. Category managers quietly gave up and shipped promotions based on last month's static exports, which is a polite way of saying they navigated fresh produce and seasonal demand with stale maps.

The human toll was just as real. Analysts spent their days exporting CSVs, reconciling store lists and re-formatting the same tables for different requesters — Gartner had long predicted that self-serve analytics would become the dominant driver of BI investment for exactly this reason, and industry surveys such as the Anaconda State of Data Science consistently find that analysts spend roughly 45% of their time loading, cleaning and preparing data rather than analyzing it. Maplecrest's analysts were living proof, and some of the best of them were interviewing elsewhere.

03 The Challenge

The challenge was not a shortage of dashboards; it was a surplus of unmanaged ones. Sixty reports with overlapping purposes, unknown owners and drifting definitions had created an environment where the cost of answering a question was high, so demand piled into a queue, and the queue itself became the bottleneck. Because every answer required an analyst, the BI team could not scale with the business no matter how hard it worked, and because every dashboard defined metrics its own way, scaling up would have multiplied the disagreement rather than resolved it.

There was also a trust problem that no tool purchase could fix on its own. When two reports disagree and resolution takes weeks, people stop citing data in meetings and start citing tenure — whoever has been in the category longest wins the argument. Any modernization therefore had to restore a single source of truth, prove it against the legacy numbers, and then restructure daily work so merchants could answer routine questions without filing a ticket. Forrester's research on insights-driven businesses — which grow faster and take share from less-informed competitors — described the destination, but the road there ran through some uncomfortable cleanup.

04 Discovery and Diagnosis

Emerson Technology opened with a two-week discovery sprint. The first exercise was a census: every one of the 60 dashboards was listed with its owner, its last genuine use, its consumers and the business question it claimed to answer. The team interviewed every active consumer group — merchants, category managers, operations, finance — and asked a simple question of each dashboard: if this disappeared tonight, who would notice, and when did someone last act on it? The census found that the 60 dashboards hid roughly fifteen real questions, asked repeatedly with slightly different filters, and that a majority of the reports had not driven a documented decision in over a year.

The diagnosis then traced where disagreement came from. Same-store sales differed across reports because store-open dates, remodel exclusions and calendar alignment were each handled differently. Margin definitions varied by whether vendor allowances were netted in. Shrink was calculated three ways in three dashboards. None of the definitions were documented, tested or version-controlled, so drift was inevitable. The audit also confirmed the access model was the core scaling failure: a request-response pattern forced every question, however small, through the same four people. The conclusion was blunt — adding headcount would not fix this; collapsing the metric surface and moving consumers to self-serve would.

05 The Solution

Emerson Technology designed the modernization around one principle: define every metric once, centrally, and then let people serve themselves. The architecture has three layers, and each layer exists to remove a specific failure mode from the old world.

One certified metrics layer

The foundation is a governed metrics layer built with dbt on Snowflake. Sales, margin, basket and shrink each received exactly one definition, written as tested, documented, version-controlled code with a named owner. Store hierarchies, calendars and promotion tables were consolidated so every report reads from the same reference data. When same-store sales now appears anywhere in the company, it is computed from one formula — the two-numbers argument in merchandising meetings simply ended. Automated tests run on every refresh, so a broken feed or a sudden definition break is caught by the pipeline rather than discovered in a board meeting.

Governed self-serve on Power BI

On top sits Power BI, organized into 18 governed subject areas that replaced the 60 legacy dashboards. Certified datasets are clearly marked so self-serve users build on trusted tables, and row-level security ensures store-level and margin data reaches only the roles entitled to see it. Merchants slice, filter and combine certified data themselves in workspaces designed around their questions, instead of filing tickets for a filtered export. The change is subtle but profound: the BI team's knowledge is embedded in governed products rather than locked in four people's calendars.

An operating model that sustains it

Underneath, Airflow orchestrates nightly refreshes with published SLAs — merchants know which datasets land by 6 a.m. and the platform monitors itself against those promises. A champions program embedded one trained power user in each merchandising and operations team; champions answer the small questions locally and feed usage patterns back to the central group. The BI group itself was restructured from a report factory into an enablement pod: its job is now governing definitions, curating certified datasets and building only the models no self-serve pattern can cover — forecasting, optimization and experimentation work that actually moves margin.

06 The First 90 Days

Weeks one and two were the census and consumer interviews described above, plus a reconciliation baseline: for the top ten metrics, the new metrics layer was run side by side with every legacy definition, and every gap was traced to a specific formula difference. That reconciliation mattered more than any technology — when the new same-store sales number differed from a dashboard a VP had trusted for years, the team could show precisely why, down to the calendar rule. Definitions were adjudicated in a weekly metric council with merchandising, finance and operations at the table, and every ruling was recorded in the dbt repository where it remains visible today.

Weeks three through six delivered the first three subject areas — sales, margin and basket — to a pilot group of category managers. The pilot deliberately included the loudest skeptics, and each pilot user got a 45-minute onboarding session and a named contact. Adoption was made observable from day one: the team tracked which certified datasets were used, which questions moved off the ticket queue and where new gaps appeared. Weeks seven through ten ran the retirement waves in earnest — dashboards were merged into subject areas, owners signed off, and links were redirected — while the champions program trained one power user per team and the first refresh SLAs were published internally.

Weeks eleven and twelve completed the migration, extended row-level security across all roles, and held a retrospective that reset the BI team's charter. The old backlog was formally closed: 200 items were triaged, and the overwhelming majority were resolved by subject areas that already answered them. By the end of the quarter the question "who owns this number" had an answer for every metric that matters, and the weekly ticket ritual was a memory.

07 The Results

Within five months of cutover, the 60 legacy dashboards had become 18 governed products, and the 200-item report backlog had shrunk 85%. Median time-to-answer fell from three weeks to same day, and 72% of queries are now run self-serve without any analyst involvement. Same-store sales has one definition, which ended the two-numbers argument in every meeting, and the BI team's throughput on genuinely new analysis roughly doubled. In the first quarter after cutover, merchants launched two seasonal promotions earlier and better targeted than the prior year, and they credit the faster answers for the change.

METRIC	BEFORE	AFTER
Legacy dashboards retired	-	60
Report backlog	200 items	85% lower
Time to answer	3 weeks	Same day
Self-serve query share	-	72%

The qualitative shifts compounded the numbers. Merchants describe a different relationship with data: instead of requesting evidence, they interrogate it, and category conversations now start from a live view rather than a month-old export. The analysts who once spent most of their week exporting CSVs now build the certified

datasets and the analyses that self-serve cannot cover. And the retirement discipline stuck — dashboards are now born with an owner, a definition and a review date, so the next decade cannot quietly rebuild the last one.

08 What Your Business Should Do

The pattern behind Maplecrest's result is repeatable, and none of it requires exotic technology. Start by auditing your dashboards before building anything new: list every report, its owner and its last real use, because most organizations find that half their dashboards are unused duplicates that should be retired rather than migrated. Then define each metric once, centrally, in a certified metrics layer with tested and version-controlled definitions — when same-store sales has one owner and one formula, the meeting-room arguments stop on their own. As you consolidate, merge rather than migrate: sixty dashboards usually hide about fifteen real questions, and answering those well beats translating clutter one-to-one.

Make the operating model part of the design, not an afterthought. Embed a trained champion in each team so small questions get answered locally and usage patterns flow back to the central group — support scales organically without adding headcount. Set refresh SLAs for every dataset, automate the pipeline against them and publish the promises, because trust grows when data arrives on time, every time. Certify your approved datasets and layer row-level security so self-serve users build on trusted tables and sensitive data reaches only the right eyes. And reserve your BI team for hard problems — forecasting, optimization, experimentation — instead of letting a report factory consume the strategic analysis leadership thinks it is paying for.

Finally, measure what matters quarterly: the share of queries answered without analyst help and the trend of your backlog. Adoption, not dashboard count, is the real KPI of BI modernization — Maplecrest's 72% self-serve share is what turned a project into a capability. Gartner's long-running prediction that self-serve analytics would dominate BI investment is not a forecast to admire; it is a benchmark to operationalize. Ask yourself the questions this program forced Maplecrest to answer: how many dashboards you run and how many were updated last quarter, what happens when two reports disagree, and whether a trained merchant — not an analyst — could answer tomorrow's routine questions under your current setup. Work through the eight actions above with your team, and return to the reflection questions in this practice book each quarter to keep the capability honest.

REAL-WORLD PROOF & BENCHMARKS

Gartner has long predicted that augmented, self-serve analytics would become the dominant driver of BI platform purchases, displacing hand-built, IT-delivered reports. - Gartner

Forrester research has reported that insights-driven businesses grow revenue faster than peers and are on track to take market share from less-informed competitors. - Forrester

Industry surveys repeatedly find that analysts spend roughly 45% of their time loading, cleaning and preparing data rather than generating the insights they were hired for. - Anaconda State of Data Science

THE PRACTICE PAGES

The 8-action checklist

Work through the list with your team. Tick each box as your organization completes the step, and fill in an owner and a target date so every action has a name and a deadline.

☐**1. Audit dashboards before building new ones**

List every report, its owner and its last real use. Most organizations find half their dashboards are unused duplicates that should be retired, not migrated.

OWNER

TARGET DATE

STATUS

--	--	--

☐**2. Define each metric once, centrally**

Build a certified metrics layer with tested, version-controlled definitions. When same-store sales has one owner and one formula, the meeting-room arguments over whose number is right simply stop.

OWNER

TARGET DATE

STATUS

--	--	--

☐**3. Merge, don't migrate, dashboards**

Consolidate overlapping reports into a small set of governed subject areas. Sixty dashboards usually hide about fifteen real questions; answering those well beats translating dashboard clutter one-to-one.

OWNER

TARGET DATE

STATUS

--	--	--

☐**4. Embed a champion in each team**

One trained power user per department answers the small questions and feeds usage patterns back to the central BI group. Support scales organically without adding headcount.

OWNER

TARGET DATE

STATUS

--	--	--

☐**5. Set refresh SLAs and publish them**

Decide which datasets must be hourly, daily or weekly, then automate and monitor against those promises. Trust grows when data arrives on time, every time.

OWNER

TARGET DATE

STATUS

--	--	--

☐

6. Reserve the BI team for hard problems

Redirect analyst capacity from ticket queues to forecasting, optimization and experimentation. A report factory never generates the strategic analysis leadership thinks it is paying for.

OWNER

TARGET DATE

STATUS

--	--	--

☐

7. Certify datasets with row-level security

Mark approved datasets as certified so self-serve users build on trusted tables. Layer row-level security so store-level data reaches only the people who should see it.

OWNER

TARGET DATE

STATUS

--	--	--

☐

8. Measure self-serve adoption quarterly

Track the share of queries answered without analyst help and the backlog trend every quarter. Adoption, not dashboard count, is the real KPI of BI modernization.

OWNER

TARGET DATE

STATUS

--	--	--

AFTER THE CHECKLIST: OUR TOP 3 PRIORITIES

From the eight actions above, write down the three you will start first - and the single number you expect each one to move. Three priorities with owners beat eight without any.

PRIORITY 1 NUMBER IT SHOULD MOVE	PRIORITY 2 NUMBER IT SHOULD MOVE	PRIORITY 3 NUMBER IT SHOULD MOVE
--	--	--

THE PRACTICE PAGES

Reflections for your team

Use these questions in your next planning session and type short answers into the boxes. The gaps you find are usually the fastest wins.

Q1. How many dashboards does your organization run, and how many were updated in the last quarter?

Q2. When two reports disagree in a meeting, what is the process — and how long does resolution take?

Q3. What fraction of your analyst capacity goes to repeating last month's report instead of new analysis?

Q4. Could a trained merchant, not an analyst, answer tomorrow's routine questions themselves under your current setup?

Q5. Which five metrics would you certify first if every legacy report disappeared tonight?

Q6. How much faster could your teams act if routine answers took an hour instead of three weeks?

THE PRACTICE PAGES

My 90-day plan

Finish the session by committing to a plan. Three phases, one goal each, one number that tells you it worked. Bring this page to your next leadership review - or to a free consultation with Emerson Technology, and we will pressure-test it with you.

Days 1-30 Focus: audit and alignment

PRIMARY GOAL**KEY ACTIONS****HOW WE MEASURE SUCCESS****OWNER**

Days 31-60 Focus: build and prove

PRIMARY GOAL**KEY ACTIONS****HOW WE MEASURE SUCCESS****OWNER**

Days 61-90 Focus: scale and measure

PRIMARY GOAL

KEY ACTIONS

HOW WE MEASURE SUCCESS

OWNER

Tip: save a copy per team so each group keeps its own answers. Revisit the reflections every quarter - the questions stay the same even as the numbers move.

BOOK THE REVIEW BEFORE YOU CLOSE THE BOOK

Plans without a review date drift. Before you close this practice book, agree on when you will come back to these pages, who will run that session, and when you will check the numbers again. If you want an outside pair of eyes, bring this page to a free consultation with Emerson Technology and we will pressure-test the plan with you.

REVIEW DATE	REVIEWED BY	NEXT CHECK-IN
------------------------------------	------------------------------------	--------------------------------------

Ready for a transformation like Maplecrest Markets's?

Emerson Technology designs and builds the data, AI, cloud and automation systems behind results like these. On a free consultation call we will map this exact playbook to your business - your data, your constraints, your numbers.

Book a free consultation

support@emersontechnology.com

or start online: emersontechnology.com/contact