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WHITEPAPER • JULY 2026 • HOTEL DECISION SYSTEMS

From dashboard fatigue to hotel decision systems.

A practical guide for hotel leaders who want reporting to create faster, clearer, and better-owned revenue decisions.

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A report creates value only when a person, threshold, action, and review rhythm are attached to it.

Hotel teams do not need more dashboards by default. They need the right decisions to be named, owned, measured, and reviewed.

Research from MIT Sloan, Deloitte, HEDNA, NYU SPS, RateGain, and travel-company examples points to the same conclusion: analytics creates value when it starts with the decision and works backward to the data, owner, and action path.

This paper gives hotel leaders a simple operating model for turning reports into decision systems across revenue, distribution, sales, staffing, and guest recovery.

32%

COMPANIES
REALIZING
MEASURABLE VALUE
FROM ANALYTICS,
CITED BY MIT SLOAN

80%

HOTELS SPENDING UP
TO TWO WORK DAYS
EACH WEEK
STITCHING REPORTS

48%

INDEPENDENT
HOTELS WANTING
MONTHLY OR OWNER
DASHBOARDS
AUTOMATED

1

OWNER NEEDED FOR
EVERY COMMERCIAL
DECISION THAT
MATTERS

Sources are listed on the public insight page and in the references section.

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The next maturity step is not another dashboard.

Dashboards can make data visible. They do not automatically make decisions better.

MIT Sloan argues that analytics programs should begin with the decision to be made, not with the data already available.¹ For hotels, that means each report should answer a management question.

The useful question is simple: who will do what differently when this number changes?

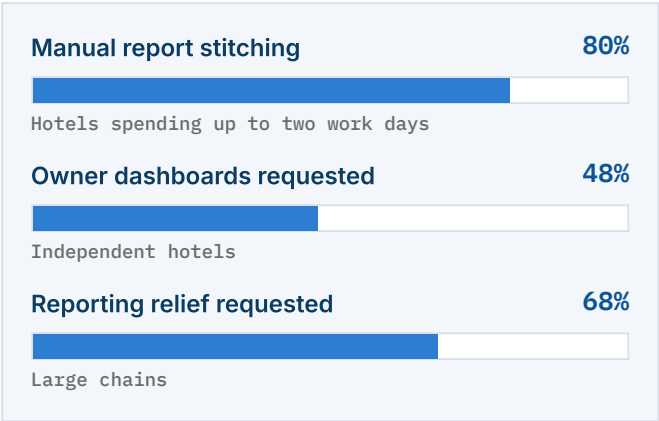
REPORT TO DECISION	
01 Metric The number is visible and trusted enough to discuss.	02 Threshold Leadership agrees what level requires action.
03 Owner One person owns the decision and the first response.	04 Review The outcome returns to the next meeting.

Hotel reporting is still too manual.

The reporting burden is not only a productivity problem. It delays action when demand signals change.

The State of Distribution 2025 reports that four in five hotels spend up to two work days each week stitching reports together.²

That time should move from reconciliation into pricing, channel mix, sales follow-up, and owner communication.



Source: HEDNA, NYU SPS Tisch Center, and RateGain.

A decision system has five parts.

Deloitte's decision-rights research is useful for hotel leaders because it makes ownership explicit.³

A hotel decision system should define the decision, the evidence, the owner, the forum, and the review rhythm. Without these five parts, a dashboard becomes a discussion surface.

With these five parts, the same dashboard becomes an operating tool.

01

Decision
What management choice must improve?

02

Evidence
Which metric and source will be trusted?

03

Owner
Who makes or escalates the decision?

04

Forum
Where is the decision reviewed?

05

Rhythm
How often does the learning return?

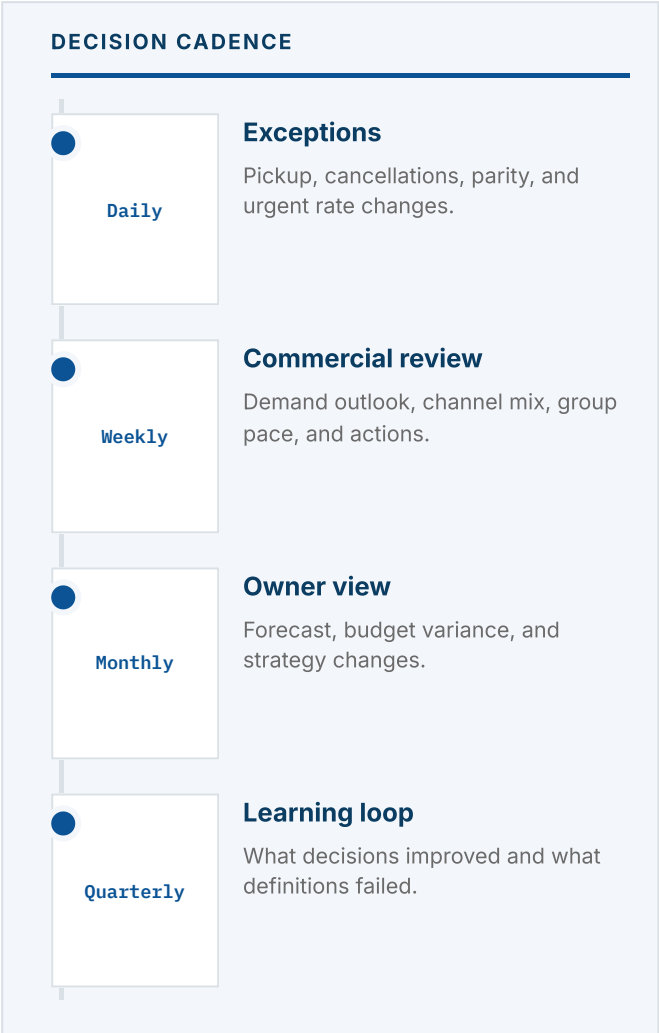
Source logic: Deloitte decision rights; Arkonis hotel operating model.

Revenue meetings already show the pattern.

Hotels do not need a foreign operating model. Revenue meetings already contain the basic shape of a decision system.

HSMAI guidance emphasizes structured revenue meetings, review horizons, accountability, and post-mortems.⁴

The improvement is to connect each metric to a trigger and owner before the meeting starts.



Marriott shows analytics embedded into a decision.

Marriott's Group Pricing Optimizer is useful because it is not just an analytics story. It is a decision-support story.

The system used demand segmentation, price-response modeling, and optimization to guide group-room pricing decisions.⁵

The lesson for hotels is direct: analytics creates more value when it changes a named decision workflow.

PRICING DECISION LOOP

01

Demand segment

Understand the request, group type, dates, and displacement risk.

02

Price response

Estimate how the customer may respond to different rates.

03

Recommendation

Produce a pricing recommendation for the sales decision.

04

Learning

Feed outcomes back into future pricing decisions.

Booking.com and Expedia show the need for guardrails.

Travel companies with mature experimentation cultures do not only measure more. They decide faster with controls.

Booking.com is widely cited for experimentation as a management system. Expedia has described real-time monitoring to detect harmful tests quickly.⁶

Hotel leaders can borrow the lesson without copying the platform: define the stop rule before the experiment starts.

CONTROL	HOTEL TRANSLATION	OWNER
Hypothesis	What decision should change?	Commercial lead
Metric	What number proves improvement?	BI or revenue lead
Stop rule	When do we stop or roll back?	Executive sponsor
Decision record	What did we learn?	Decision owner

Examples: Booking.com experimentation; Expedia test monitoring.

Commercial decisions need one source of truth.

Data disputes consume the time that should be spent on decisions.

Amadeus and Oracle both describe the hotel problem as fragmented systems, weak interoperability, and reconciliation work across operational and guest data.⁷

The goal is not one perfect database on day one. The goal is one accepted source for each priority decision.

COMMERCIAL DATA STACK

04

Action path

Rate, channel, sales, staffing, or service response.

03

Decision metric

The number used in the meeting.

02

Trusted source

The agreed PMS, CRS, RMS, POS, or finance source.

01

Definition

The shared meaning of the metric.

The first decision system should be narrow.

A hotel can start with one report and one recurring decision. A narrow first system is easier to build, adopt, and defend.

Good candidates are decisions with high frequency, visible cost, clear owner, and measurable action.

The best first use case is rarely the flashiest report. It is the decision where slow action already costs money.

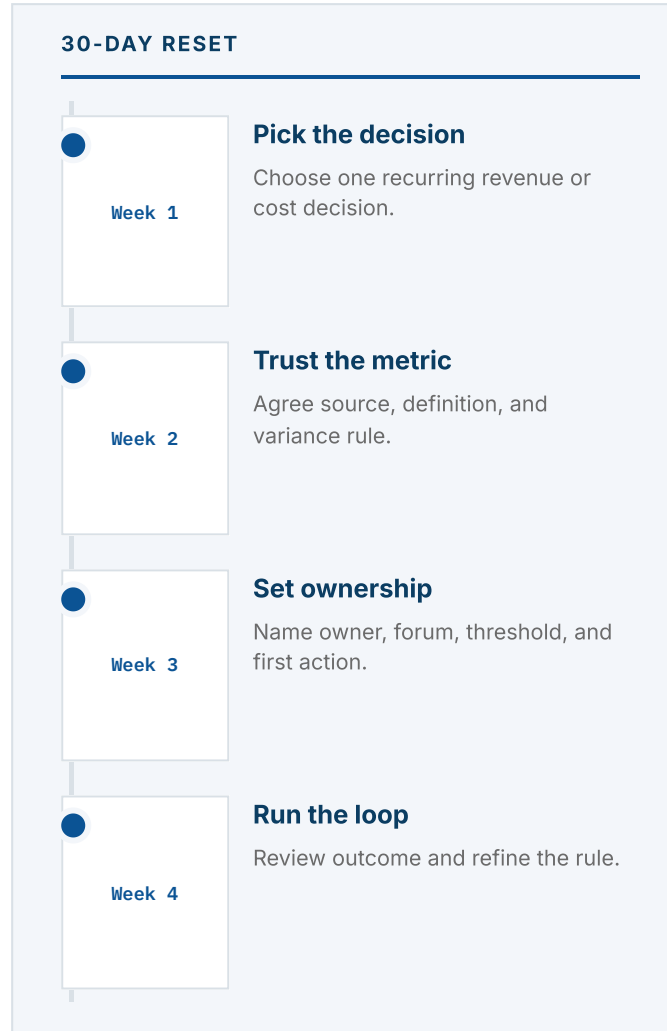
DECISION	TRIGGER	FIRST ACTION
Rate change	Pickup or comp-set move	Review price band
Channel mix	Net revenue drops	Shift spend or availability
Group quote	Displacement risk rises	Adjust quote or terms
Service recovery	Guest issue repeats	Assign recovery action

The 30-day reset converts a dashboard into action.

The reset does not require a full data transformation. It requires discipline around one business question.

In 30 days, leadership can choose a decision, agree the metric definition, assign ownership, set the meeting cadence, and document the first action rules.

After that, the dashboard is no longer passive. It becomes part of management rhythm.

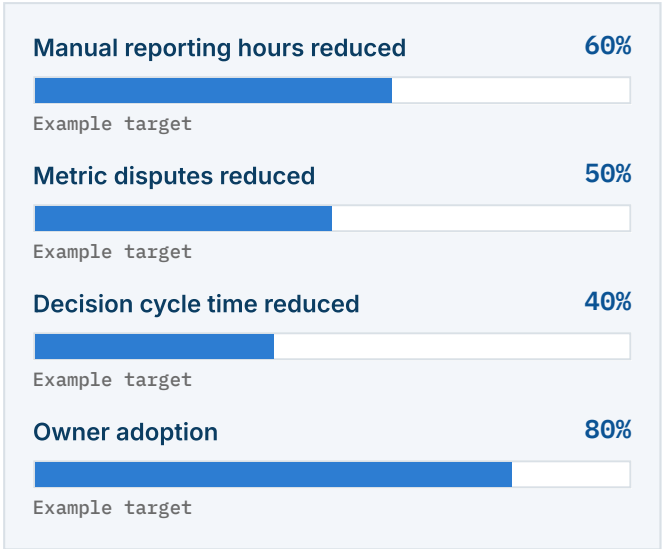


Measure the system, not the report.

A beautiful report can still fail if the decision does not improve.

Measure the decision system by time saved, fewer metric disputes, faster action, adoption by the named team, and better commercial outcome.

This makes the business case clearer because leadership can see how reporting changes work.



Illustrative targets. Replace with hotel baseline during assessment.

Sources used for the argument and examples.

SOURCE	REFERENCE	HOW IT IS USED
MIT Sloan	Decisions, not data, should drive analytics programs	Analytics programs should start with decisions and work backward to required data.
Deloitte	Getting decision rights right	Decision rights clarify who decides, what matters, and how forums and evidence support decisions.
HEDNA / NYU SPS / RateGain	The State of Distribution Report 2025	Hotels still spend major time stitching reports, with fragmentation and limited technical depth slowing action.
HSMAI	Running an effective hotel revenue meeting	Revenue meetings need structure, accountability, and recurring review.
INFORMS	Marriott Group Pricing Optimizer	Marriott embedded analytics into a group-pricing decision support system.
HBR	Building a Culture of Experimentation	Booking.com is cited for treating experimentation as a management system.
Expedia Group	Preventing revenue loss with real-time A/B test monitoring	Experimentation at scale needs guardrails, monitoring, and stop rules.
Amadeus	Digital transformation in hospitality	Connected hotel systems support smarter decisions from pricing to staffing.

Specific source URLs are listed on the public insight page at arkonis.ai/insights/hotel-decision-systems-whitepaper/.



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Assessment

Data, systems, governance, operating model, and 90-day roadmap.

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