



# **HOTEL DISTRIBUTION DATA MANAGEMENT AND ANALYSIS**

**A 2018 assessment on global  
and regional practices**

HEDNA Hotel Analytics Working Group  
Report of Findings

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Winter Conference, Austin TX, January 30th 2018

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## 1. Executive Summary

**“Water, water everywhere, but not a drop to drink”**

**- Samuel Taylor Coleridge, 1798, The Rime of the Ancient Mariner**

Coleridge’s quote is an apt description for the global state of hotel distribution data management and as this paper sets out to reveal, the responses and general enthusiasm for the initial survey validates a mandate for guidance as well as change.

HEDNA’s Hotel Analytics working group (founded in the spring of 2017) set-out to investigate key ways in which hoteliers collect, store, analyze and action their data as part of their distribution operations. The objective is to prepare industry best practice recommendations and identify opportunities for added value from the data.

The group opted to focus initially on defining the current status of hotels’ approach to distribution data management, based on a working group pre-survey that quantified that issues related to data collection and storage were pre-requisites for future industry improvements.

A 20-part survey was released in October 2017 and over an 8-week period, generated 1,053 global responses, representing over 40,000 hotels and Management Companies., in itself a significant achievement as one of the largest survey samples collected.

The survey set out to quantify current practice in data collection, storage and usages, as well as test respondents’ overall data satisfaction. The Survey responders come from all major continents and represent hotels, management companies and independents. The Analytics Working Group split into 3 groups to analyze the sample size across these three segments.

Data quality and systems integration were cited as key challenges and potential barriers to analytics initiatives.

Throughout the survey, the importance of the OTAs both in terms of impact on inventory allocation but also the relatively positive quality and access to data was reinforced across all segments surveyed.

Repeatedly throughout the survey it became apparent that despite high collection rates across all segments in key distribution data, such as Costs or Operational Performance, this did not translate into KPI definition and data usage.

At Chain level, the data findings were surprisingly consistent with the global average, with the unusual exception of inventory mix, where 30% of Chains were found to have more than 50% of their available inventory placed with OTAs.

For the Independents, which dominated the results with 59% of responses, the absence of resources and education was frequently observed both in the qualitative and quantitative data collected. This however did not limit their ability to track key data sets such as Guest Data, OTA Fees and Cancellations.

Finally and the most interesting contribution to the study, were the responses from the Management Companies. In general they communicated high dissatisfaction with the data quality and systems provided by their respective chains/brands but reacted to this with substantially greater investments into human resources, data warehousing and 3rd party analysis tools.

This led to their scoring proportionately higher ranking in KPI's such as Cost of Distribution, which alludes in itself to the future recommendations and best practice guidelines to be generated by the working group.

The initial survey results and findings were first unveiled and presented on the 30th of January 2018 at the Winter HEDNA Conference in Austin, Texas at which time next steps and an outline for future best practice guidelines were defined.

Two distinct approaches for further best practice developments were proposed and are currently being explored. The first suggestion aims to find ways to help hoteliers leverage more of their existing data by making it more accessible and usable in real operational contexts. The second suggestion promotes greater collaboration between vendors and hoteliers in defining and aligning a set of data standards across channel types to overcome current data fragmentation.

## 2. About HEDNA

Founded in 1991, HEDNA (Hotel Electronic Distribution Network Association) is the only global forum exclusively dedicated to the advancement of hospitality distribution through strategic collaboration and knowledge sharing.

For over 25 years, the non-for-profit association has provided its members with networking platforms, educational opportunities and professional resources to help them navigate the ever-evolving landscape of hotel electronic distribution.

HEDNA works to optimize the use of technologies while influencing the development of current and emerging distribution channels. It promotes an open exchange of information and professional development among its members. HEDNA's global conferences deliver the most comprehensive information, insights and dialogue on trends in hotel distribution.

HEDNA is comprised of hospitality industry leaders and innovators. Members represent all areas of electronic distribution including hotels, representation and Management Companies, GDSs, switch companies, OTAs, tour operators, software and payment service providers, industry consultants and educational institutions.

HEDNA is funded by the dues of its members and is governed by an elected Board of Directors comprised of Principal and Allied Members.

### 3. About Data Analytics Working Group

Founded in Spring 2017, the working group's vision is to empower hoteliers to collect, store, analyze and action their data to make intelligent decisions about their distribution strategies.

#### **Working Group Mission**

- 1) Increase awareness and adoption of data analytic practices and tools
- 2) To demonstrate how data analytics can be applied to hotel distribution
- 3) To create global and regional recommendations for hotel best practice.

#### **Identified Business Problems**

The perishable nature of the hotel product means hotel distribution is a race against time. The need to optimize occupancy depends on a number of disciplines working well together, not just distribution.. There is the urgency to keep IT operations, optimized with its complex web of APIs and networks with powerful intermediaries, switches and GDSs, at the center. Data is the crucial ingredient to retaining control of pricing, inventory and customer relationships, and being able to compete effectively. The key challenge is identifying what data is needed to answer key questions, how can it be obtained and how it can be best applied in daily operational and commercial decision making.

#### **Working Group Objectives**

Via engagement with HEDNA members and the broader hospitality community, the working group seeks to increase awareness and adoption of data analytic practices and tools and to demonstrate how they can be applied to hotel distribution incorporating recommendations for hotel best practices.

## Working Group Participants

GROUP 1 Chains	GROUP 2 Management Companies	GROUP Independents
Matthew Goulden (Triometric)	Sonja Woodman (Triometric)	David Turnbull (Snapshot)
Clive Wood (Snapshot)	Criss Chrestman (NTT Data)	Caroline Faries (ErevMax)
Dave Chestler (Kognitiv)	Nicole Young (Rosewood Hotels)	Casey Davy (Busy Rooms)
Julie Garrett (Rocco Forte Hotels)	Jodie Gibson (Derbysoft)	Arunn Ramaduss (Fornova)
Michael Klein (MGM)		Rajesh Vohra (Sarova Hotels)

### Working Group Co-Chairs

David Turnbull, CCO and Co-founder, Snapshot  
 Matthew Goulden, CEO, Triometric

### Working Group Coordinator

Sonja Woodman, Marketing Manager, Triometric

### HEDNA Board Liaisons

Jodie Gibson, Manager Strategic Accounts, DerbySoft  
 Clive Wood, Vice President, Business Development, Snapshot

### Editing

The team appreciates the editorial contribution from Julie Garrett, Rocco Forte Hotels

## 4. Introduction

### i. Background

HEDNA is ideally placed to use the expertise of its membership to address the challenge and identify best practices for industry adoption of data analytics.

The following are five examples, where Hotels large or small today do not have sufficient visibility:

- 1. Cost of Distribution** – Hotels need to fully understand the relative costs of direct and indirect distribution channels and their respective models and costs (i.e. commission or advertising-based). With limited insight hotels have difficulty comparing or benchmarking the different types of channels and identifying those that deliver the best returns in terms of value against the costs involved.
- 2. Market Trends** – In a climate of high look to book ratios, hotels can lack insight into the spectrum of which products / destinations are being searched for, by channel and how they convert. This makes it difficult sometimes to spot market trends and opportunities ahead of the competition.
- 3. Distribution Supply Insight** – Many hotels are dependent on third parties for the provision of distribution data and this information asymmetry puts hotels at a disadvantage. With reliance on third party channels or the GDSs to provide the data, often historical and not in real-time, many hotels are restricted in their ability to verify the accuracy and understand the effectiveness of channels and to fully understand the complete distribution picture.
- 4. Operational Performance** – The travel market revolves around speed and accuracy. Greater visibility is needed in real-time IT operations and connectivity performance to ensure product searches are not missed and booking engines are keeping up with fluctuating demands. Poor responsiveness and errors is the cause of serious lost revenue opportunities.
- 5. Data Management** – As the gap widens between technologically fragmented hotel chains and OTAs, hotel owners and operators are under increasing pressure to reclaim ownership of the customer by reinventing their approaches and attitude to data collection, storage and usage. This requires greater visibility into a variety of data for distribution, marketing, and revenue management.



## ii. Research Objectives

The aim of the survey is to gain an understanding of the current distribution data management and analysis practices. The objectives of the research are to help hoteliers globally exploit the commercial value residing in their data. This can be done by helping them apply data analysis in the way they conduct their distribution, revenue management and marketing functions, by focusing on:

- Increased awareness of what type of data can be analyzed and the insights to be gained
- Education on potential analytical processes and tools and innovations that can be deployed
- Creation of insights into how and where data analysis can help achieve real returns (ROI)
- Development of best practice guidelines

## iii. Research Methodology

Concluded at the June 2017 Summer Conference in Dublin, the working group agreed to focus on the creation and development of a largescale survey that would take the pulse of current global/regional practice across 3 key segments:

- Hotel Chains
- Management Companies
- Independent Hotels

The survey was developed based on 3 aspects of distribution data management:

- 1) Data Collection
- 2) Data Storage
- 3) Data Usage

With the goals to identify general and segment level consistencies and anomalies whilst presenting both global and regional best practice.

The survey asked the following questions:

- How many properties does your organization have (all brands)?
- How would you describe your organization?
- How would you describe your role within your organization regarding your systems and processes?
- Which data do you gather to generate insight into your third party electronic distribution?
- Which systems do you currently work with to collect data for use in distribution analysis?
- Which third party electronic distribution channels do you currently use to distribute your inventory?

- Which third party electronic distribution channels provide you with data for your distribution analysis?
- How current is the data you use in distribution analysis?
- How do you currently store the data used for distribution analysis?
- How long do you keep data?
- Which of the following are challenges to you and your organization's data availability?
- Do you have a particular data challenge not mentioned above?
- Does your distribution organization have a data analysis team?
- Which key performance indicators (KPIs) is your organization using in distribution?
- Do you think your organization is measuring the right KPIs to be effective in distribution?
- Do you have access to the data you need to effectively manage your distribution?
- What is the primary use of the distribution data that your organization collects?

The survey was active over an 8 week period in Q4 2017, and was distributed to hoteliers in one of 3 ways:

- 1) Via HEDNA Hotel Member Network
- 2) VIA HEDNA Vendor Member Network
- 3) Via Social Media

The data was collected via an online survey and was segmented into the following categories for initial data analysis by the working group:

- General Findings
- Hotel Chain
- Management Company
- Independent

#### **iv. Research Results**

The survey attracted responses from 1053 hospitality operators (Chains, Management Companies and Independents), providing a broad sample base of over 40,000 hotels.

As outlined in the subsequent analysis and findings sections, the results were influenced by a high percentage of independent hotels (60% - a logical reflection of the global and open nature of the survey), with active representation across all continents and segments of hotel.

## 5. Survey Results & Analysis

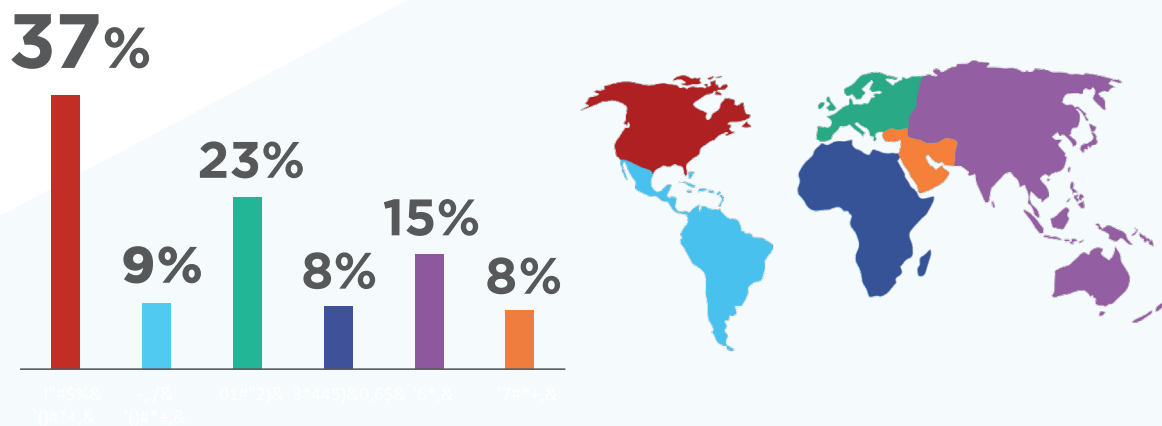
### Q1 How many properties does your organization have (all brands)?

Our first question was designed to give us feedback on the overall organizational scale and distribution of our respondents.

Whilst the property count in North America is dominant within our survey, we have strong coverage in Europe and at least some coverage for other regions.

With regard to scale of operations, the 0-51 interval dominates, accounting for approximately 80% for all regions. The next highest coverage are the 51-100 and 1000+ intervals. Sample size was 1,053 respondents representing about 40,000 hotels.

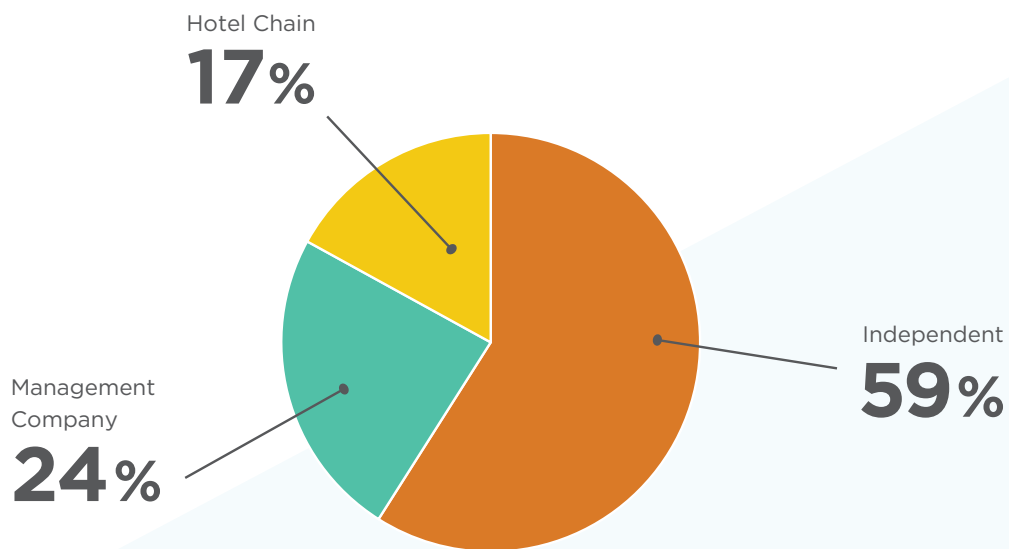
#### Regional Distribution of Properties



## Q2 How would you describe your organization?

The surveys had excellent representation both in numbers of respondents and hotel categories making it one of the most extensive survey in hotel analytics to date.

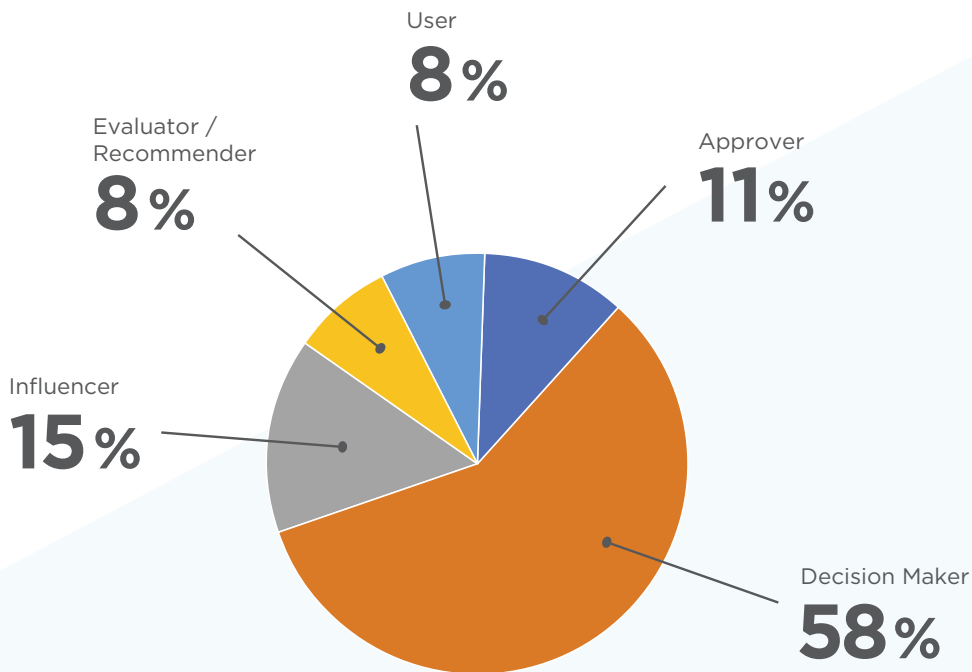
### Hotel Management Type



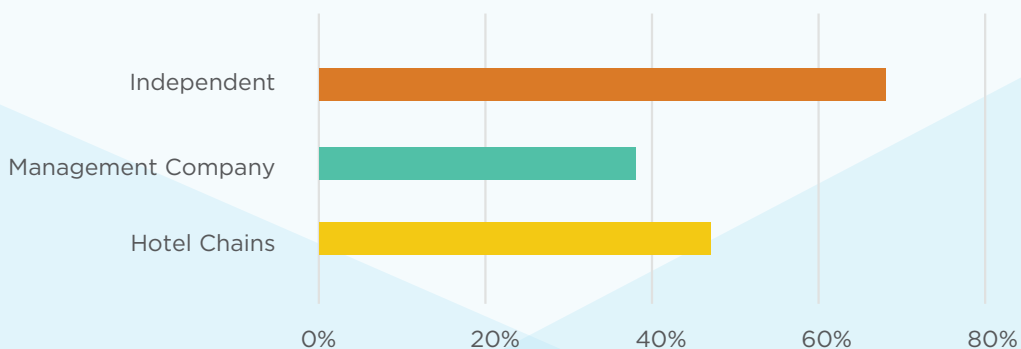
**Q3 How would you describe your role within your organization regarding your systems and processes?**

The 58% of respondents with their stated role as Decision Maker clearly indicates the response to the survey overall is fairly senior. This may be skewed to some extent by the Independents since we see a different picture when we split by Hotel category:

Respondent's Role



% of 'Decision Maker' Respondent



**Q7 Which data (from the options provided in the table) do you gather to generate insight into third party electronic distribution?**

For Cost of Distribution, GDS and OTA fees have the greatest focus for Chains and Management Companies, lower for Independents. This trend is also true for Modifications & Cancellations, with the Chains and Management Companies reporting ~80%+ and the Indies less than 74%.

Management Companies give Operational performance much higher priority with 85% gathering Response times versus 74% and 70% for Chains and Independents. Management Companies focus on Operational data is also shown for Faults and errors with 83.5% versus 67% and 64% for the Chains and Independents.

In the underlying data Chains reported by far the highest non-availability of Operational performance data, 22% and 27% reporting no availability of Response time and Errors and faults data. By comparison Management Companies reported 8% and 9% respectively.

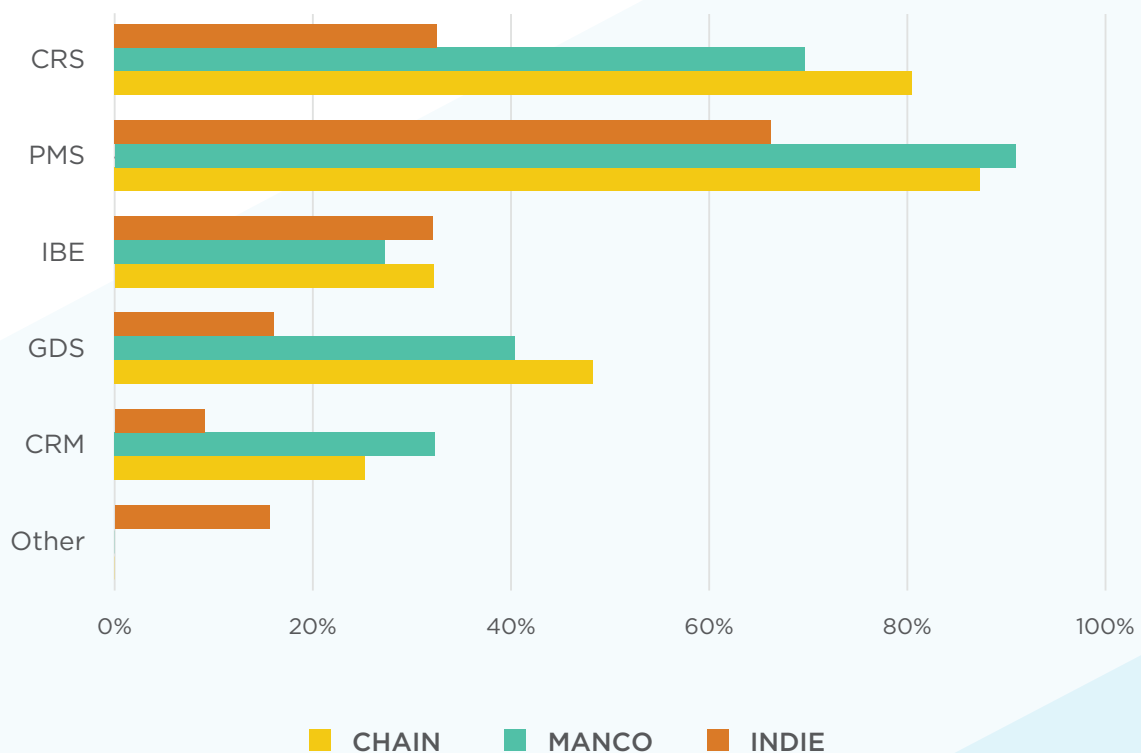
		CHAINS	MANCOS	INDIES
<b>DISTRIBUTION COSTS</b>	GDS platform fees	88.76%	83.33%	71.69%
	OTA fees	90.91%	89.69%	84.58%
	Metasearch platforms (CPC/CPA)	76.19%	74.19%	57.35%
	Late Booking platform fees	63.41%	68.82%	56.94%
	Modifications & Cancellations (All platforms)	82.76%	80.65%	73.76%
<b>OPERATIONAL PERFORMANCE</b>	Response times	74.12%	84.95%	70.00%
	Errors and Faults	67.06%	83.52%	64.32%
	Service Level Agreements (SLAs)	80.49%	80.00%	60.66%
<b>TRAFFIC VOLUMES</b>	Searches	84.09%	89.13%	80.63%
	Bookings	93.02%	92.63%	87.61%
	Modifications & Cancellations	85.88%	88.04%	80.36%
	Look to Book by Channel	88.10%	92.31%	75.23%
<b>GUEST DATA</b>		96.51%	93.55%	90.21%

### Q8 Which systems do you work with to collect data for use in distribution analysis?

The Property Management System (PMS) is the dominant system for the storage and therefore the source of data for distribution analytics. Across the Hotel, 87% of Chains used their PMS for data collection, with 91% of Management Companies using the PMS data and 69% of Independents. This may reflect the scale and limited resources of some Independents.

The CRS and GDS are second and third data sets of choice for analytics, Chains showing a greater use of CRS and GDS data than Management Companies.

Chains and Management Companies show significant use of CRM data for distribution analysis. Independents show limited use of CRM data again a possible reflection on resources and sophistication.



**Q9 Which third party electronic distribution channels do you use to distribute your inventory, expressed approximately as a percentage of your total third party distribution?**

In this question, respondents were asked to give an indication of their relative use of various distribution channels. The chart below records the percentage results provided by the respondents of their available inventory distributed through these different channels. The data is limited to those respondents who answered the question regarding their inventory, so for example 54.4% of those respondents from the Chains said that between 10 and 50% of their inventory is distributed using the GDSs.

Distribution is dominated by the OTAs, while GDSs are used largely by corporate/consortia bookings. All groups report a high use of OTAs with roughly a third of all respondents reporting this channel as responsible for the majority of their distribution (32%, 29% and 37% for Chains, Management Companies and Independents respectively).

Notably 60% and 59% of Chains and Management Companies report significant use of OTAs (10-50% of their distribution).

The GDSs use is less than OTAs but still significant and appears favoured by the Management Companies, with 24% reporting its use for the majority of their distribution versus 16% and 17% for the Chains and Independents respectively.

There is a surprisingly limited use of the other channels (Metasearch, Late Booking & Wholesalers), especially for the Independents, probably reflecting the dominance of OTAs for their group.

Relative use of distribution channels by interval	0-10%	10-50%	50%+	Dependency
<b>CHAINS</b>				
GDS	29.87%	54.54%	15.58%	Medium
OTAs (Extranet or Direct Connects)	8.54%	59.76%	31.70%	High
Metasearch platforms (if identified as separate channel)	62.50%	29.69%	7.82%	Low
Late Booking platforms	86.56%	7.46%	5.97%	Low
Wholesalers	60.28%	34.25%	5.48%	Low
<b>MANCOS</b>				
GDS	28.24%	47.06%	24.71%	Medium
OTAs (Extranet or Direct Connects)	12.64%	58.63%	28.74%	High
Metasearch platforms (if identified as separate channel)	51.39%	40.28%	8.34%	Low
Late Booking platforms	78.26%	17.39%	4.35%	Low
Wholesalers	67.07%	29.27%	3.66%	Low
<b>INDIES</b>				
GDS	57.22%	25.30%	17.47%	Medium
OTAs (Extranet or Direct Connects)	24.12%	38.60%	37.28%	High
Metasearch platforms (if identified as separate channel)	71.62%	18.25%	10.14%	Low
Late Booking platforms	81.76%	10.14%	8.11%	Low
Wholesalers	75.00%	19.87%	5.13%	Low



**Q10 Which third party electronic distribution channels provide you with data for your distribution analysis?**

In the underlying data there was little variation with respect to the groups apart from the Independents reporting No Access to the data more frequently than expected. The survey only asked about access so this category may include non-use which likely will inflate the No Access numbers particularly for the Independents.

OTAs are the best in the provision of real-time or near real-time data with over 60% of respondents recording access to data within a day for this channel. That said a quarter of all OTA channel respondents report that access is month at best!

GDSs are next best but a mixed bag as 44% of respondent’s report access to data within a day, but 21.6% state only monthly and 23.15% no access at all.

Generally low penetration or data access of other distribution channels with over a third reporting No Access of Metasearch, late Booking or Wholesale platforms.

	Real time	Daily	Weekly	Monthly	Annually	No Access
GDS	23.46%	20.68%	8.95%	21.60%	2.16%	23.15%
OTAs (Extranet or Direct Connects)	30.85%	30.10%	11.69%	16.92%	0.75%	9.70%
Metasearch platforms	15.33%	19.86%	10.45%	18.82%	2.44%	33.10%
Late Booking platforms	17.67%	14.13%	9.89%	11.66%	2.12%	44.52%
Wholesalers	12.29%	10.24%	7.85%	20.82%	6.83%	41.98%

**Q12 How do you currently store the data used for distribution analysis?**

Management Companies show the highest usage of spreadsheets and the lowest use of 3rd party data warehouses. The use of spreadsheets may reflect greater intent to combine data from different sources and its analysis.

All reflect strong preference for the use of spreadsheets and internal databases for storage of data for distribution analysis. 3rd party BI tools are being used to a degree by the Management Companies and Chains (~30%) but much less so by the Independents.

	CHAINS	MANCOS	INDIES
Spreadsheet	47.62%	61.86%	46.25%
Internal database	58.33%	61.86%	48.33%
Internal data warehouse	19.05%	15.46%	4.17%
3rd party business intelligence tool (Tableau, Qlikview, etc.)	32.14%	30.93%	10.83%
3rd party hosted data warehouse	19.05%	13.40%	14.58%
Other (please specify)	5.95%	4.12%	7.08%
Wholesalers	60.28%	34.25%	5.48%

**Q14 Which of the following are challenges to you and your organization’s data availability?**

The highest frequency of challenges for all respondents were, in order:

- Data quality / cleanliness
- Integrating data from external systems
- Integrating data from internal systems

Data quality / cleanliness was by far the most dominant challenge with 42% of respondents reporting it as their #1 challenge.

For Chains, Data Security was the #3 challenge with integrating data from internal systems at #4.

For Independents, Retaining / training skilled data staff was the #3 challenge with sharing data across departments at #4 and Integrating data from internal systems at #5.

For the Management Companies, unlike others, deploying analytics in a timely manner scored highly at #4 challenge and as for the Independents but not Chains, Retaining / training skilled data staff scored highly at #5.

	ALL	CHAINS	MANCOS	INDIES
Data quality / cleanliness	41.74%	38.00%	53.85%	37.96%
Integrating data from external systems	22.07%	20.41%	15.38%	25.00%
Integrating data from internal systems	14.71%	12.82%	14.63%	13.75%
Retaining / training skilled data staff	14.20%	5.88%	12.20%	18.07%
Data security	13.51%	16.13%	6.90%	14.63%
Deploying analytics in a timely manner	12.20%	9.52%	14.29%	13.21%
Sharing data across departments	11.11%	8.82%	5.88%	16.67%
Creating effective segmentation	10.43%	12.20%	6.25%	10.98%
Compliance with data laws and governance (regulations)	3.94%	3.45%	0.00%	4.35%
Sufficient data infrastructure and support	3.89%	2.27%	7.32%	2.38%

**Q16 Does your distribution organization have a data analysis team?**

Chains report the highest availability of ‘centralised’ analytics resources across all groups, that being at HQ. Management Companies have resources devolved to property level with 39% Management Companies reporting property level resources versus 30% for Chains.

All Chains reported availability of analytics resources either at property or HQ. 25% of Management Companies report non-availability of analytics resources and 35% for Independents.

	CHAINS	MANCOS	INDIES
General analytics team at HQ	68.18%	63.24%	25.85%
Dedicated analytics team by department (e.g. distribution) at HQ	50.00%	34.85%	16.55%
Dedicated analytics team at regional HQ (e.g. US, Europe, Asia, etc.)	39.06%	25.81%	14.49%
Dedicated analytics team at property	30.30%	39.06%	35.17%
None of the above	0.00%	25.00%	35.14%

**Q17 Which key performance indicators (KPIs) is your organization using in distribution?**

The dominant or primary KPIs are the performance based (rooms, nights, bookings) whilst efficiency based KPIs are second tier and reported as of lesser importance e.g. Cost of distribution and Look to book. Finally, operational performance KPIs are lowest of all, the third tier.

There is an apparent greater Cost of Distribution focus for the Management Companies of 74% versus 65% and 48% for the Chains and Independents.

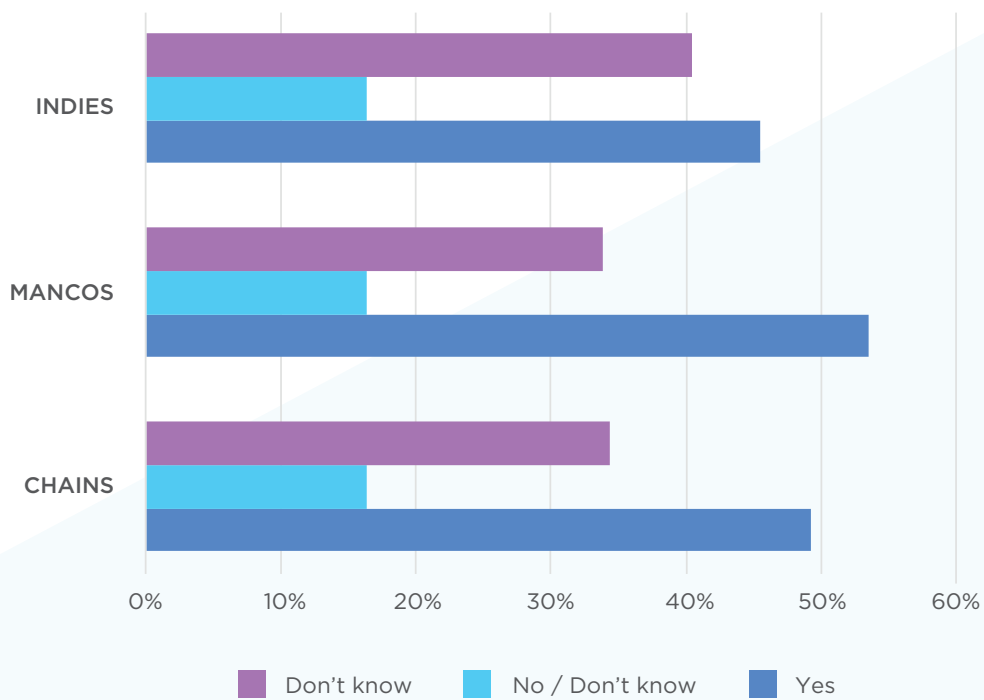
Use of Comparative market data has the greatest variation with relatively low use in the Independents (34%), higher in the Management Companies (55%) but by far the highest in the Chains (71%). Only ~30% of the Chains and Management Companies are tracking response times and ~15% error rates.

		CHAINS	MANCOS	INDIES
<b>PERFORMANCE RELATED</b>	Revenue	92.31%	89.86%	83.04%
	Total bookings	83.08%	75.36%	79.53%
	No. of nights	73.85%	78.26%	65.50%
	Comparative market data	70.77%	55.07%	33.92%
	Cost of distribution	64.62%	73.91%	47.95%
<b>EFFICIENCY RELATED</b>	Look-to-book	36.92%	36.23%	19.88%
<b>OPERATIONAL RELATED</b>	Response times	30.77%	26.09%	19.88%
	Error rates	15.38%	10.14%	4.09%
	Average transactions per second (or minute)	9.23%	10.14%	4.68%

**Q18 Do you think your organization is measuring the right KPIs to be effective in distribution?**

There is a low confidence across all groups in the measurement of the right KPIs to drive effective distribution. Only 50% reported yes. This is consistent across all groups with the Management Companies showing greatest confidence at 54% and Independents least at 46%.

Measuring the right KPIs to be effective

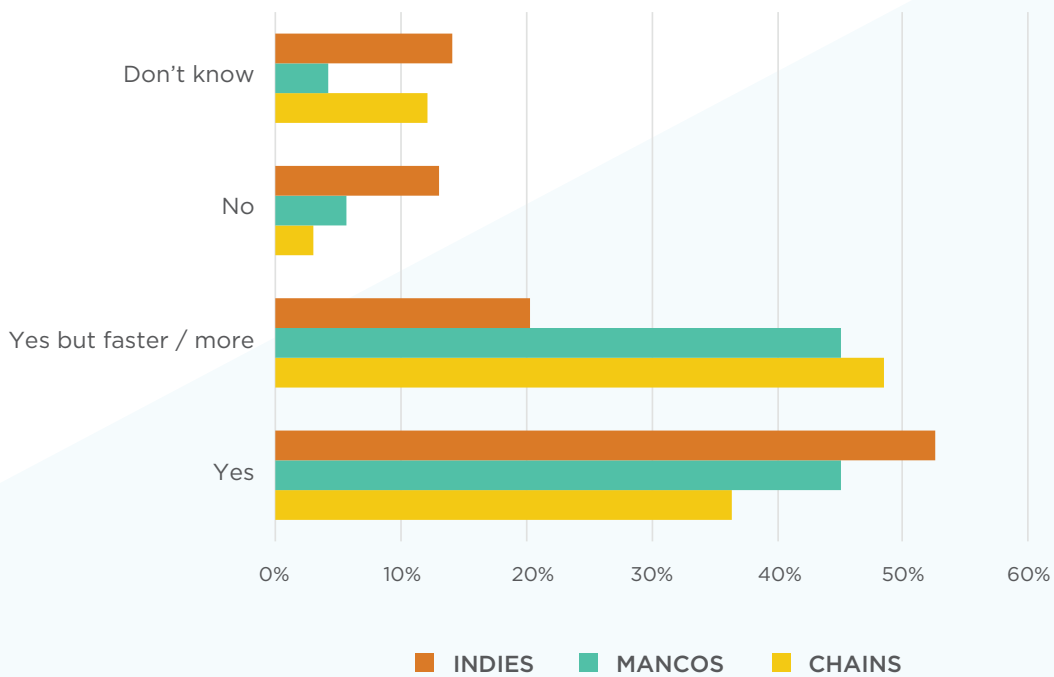


**Q19 Do you have access to the data you need to effectively manage your distribution?**

Independents show the greatest confidence reporting at over 50% that they have the data needed and that they receive it in a timely manner.

Only 36% of Chains and 45% Management Companies reported they have the data needed and received in a timely manner.

43% of Chains and 45% of Management Companies reported that their organizations had the right data but either delivered too slowly or limited in scope.



**Q20 What is the primary use of the distribution data that your organization collects?**

All groups report that strategy decision making is the primary use of distribution data in the organization with forecast modelling and channel performance close behind. Distribution data’s use for negotiating with 3rd party channels is significant for Chains (70%), much more so than Management Companies and Independents, both reporting 49%.

	CHAINS	MANCOS	INDIES
Strategy Decision Making	90.91%	89.55%	80.54%
Forecast Modelling	85.71%	80.65%	63.77%
Determine Channel Performance (Look-2-book, bookings, modifications)	80.95%	71.88%	67.63%
Help negotiate Terms with 3rd party channels	70.15%	49.18%	48.89%
Manage SLAs with 3rd party channels	51.61%	48.28%	29.91%



## 6. Findings

As the aim of the survey was to document the current state of global and regional practice in hotel distribution data management, the results both confirm this current state but also accurately reflect the nature of how the survey was created.

In reflection the survey was initially built from a HEDNA member perspective, which by default implies a North American and Chain orientation and was optimized to incorporate smaller organization (Management Companies and Independents).

Based on the qualitative feedback collected as part of the survey, it became apparent that more specific question profiles tailored to each specific segment (Chain, Independent, Management Company) as well as unique regional variations, may have yielded more focused data and findings and remains an opportunity for further research in the next phase of the working group's activities.

However, the results interestingly confirm a high degree of consistency of opinion across all segments and regions and over 60% of the results analyzed were interpreted as being capable of being read from a global perspective, which reinforces the validity of the survey approach and opportunities for best practice guideline definition.

### 6.1 General

#### Main Takeaways

- Large response to survey
- PMS dominance of storage and collection (Q8)
- Positive quality and Access to data from third parties (Q10, Q7)
- Challenges of Data Quality & Integrations (Q14)
- Low impact of Cost of Distribution as a KPI (Q7/Q17)

The survey completion rate of over 1000 respondents, representing 40,000 hotels is the clear highlight of this initial result and confirmed a global appetite to improve distribution data management, especially related to the themes of:

- i. Data Collection (Q7, Q8, Q14)
- ii. Data Storage (Q12)
- iii. Data Quality (Q14)

Based on the uniformity of response in these areas, it can be observed hotel organizations appear to have a data quality issue that can impede its use for KPI implementation and tracking, for example. This is primarily an in-house resources issue. At the same time the observed lack of effective system integration can be defined as an issue arising from the choice of vendor. It may be because the decision maker wishes to obtain and analyse data first-hand, such as certain KPIs, but may not be aware of the data collection process that is involved.

Considering the level of decision maker responding to the survey, it is alarming to discover that 50% didn't know or agree if they are tracking the correct KPI's (Q18) with an additional 50% of respondents (Q19) claiming they do have access to the data they need, implying need for improved aggregation, analysis resources.

Hotels of all categories, despite obvious media trends towards Cost of Distribution and CRM, remain highly performance focused (revenue, bookings, nights) in their KPI requirements (Q17) which reflects current and past management expectations and system behavior, but does not bode well for future planning (e.g. Q17, Cost of Distribution, ranked only 4th in current KPI tracking with even scatter regard for Distribution Operations Data).

When coupled with the low impact of data warehousing (6% - Q12) and prevalence to store and analyze data in immediate databases (66% via spreadsheets and internal databases), further validation of both resource and financial investment constraints are revealed. Considering the significant cost savings that could be achieved via improved cost of distribution and or distribution operations, it is surprising to see such low KPI and analytics adoption.

The beacon and bottleneck in all of this, appears to be the confirmation (Q8) of the Property Management System (PMS) as the primary single source of truth (SSOT) system for data collection and storage. Whilst this can be viewed very positively from a centralized data collection perspective, it raises the requirement for improved integrations and data extraction capabilities, allowing hoteliers (of all levels) to implement data action practices.

This data access inertia in perceived in-house systems, leads to an interesting contradiction compared to the satisfaction all segments of hotel reported of their ability to access and work with 3rd party data.

## 6.2 Chains

### Main Takeaways

- Surprisingly High OTA impact on inventory mix (Q9)
- Proactive availability of analytics resources (Q16)
- Importance of Data for contract negotiations (Q20)

Based on the overt dominance of North America in the wider survey results, unsurprisingly the responses from Chains were consistent with the wider general analysis and findings.

The big highlight from the survey (Q9) was the recorded importance (and domination!) of the OTA's on their inventory mix, with 30% of Hotel Chains supplying OTA's with more than 50% of their inventory.

As respondents are typically from a distribution background, this has high significance as it correctly validates the respondents understanding of the data from a global perspective (they see demand in all major continents). It however also may challenge the impact of direct booking campaigns and is possibly a reflection of behavior of Chains who have a higher percentage of franchisee owner/operators.

Unsurprisingly the Chains (Q16) invest the highest in head office data analytics resources (human and systems) and yet repost consistent levels of dissatisfaction (Q14) with data quality, system integration and data security.

Finally, the survey confirmed the importance of data management at global chain level during contract negotiations, with 70% of using analysis to help negotiate contracts with 3rd party channels and 52% using the data for enforcing and managing SLA's. Converting this data into actionable insights for commercial stakeholders being the current and future opportunities reported.

## 6.3 Management Companies

### Main Takeaways

- Highest attention to Cost of Distribution KPI's of all respondents (Q17)
- Suspicion over data sourced from chain/brand (Q14)
- Highest attention to detail on access and use of data (Q12)
- High devolvement to property (Q16)

The results of the Management Companies, confirmed how interesting their individual insights are as they balance the juxtaposition between chain and independent. Namely operating with a unique independence in collective strategy whilst reliant and (potentially limited) by specific chains/brands, for system and distribution capability.

This led to some interesting insights, especially inventory mix (Q9), that saw the most balanced of all 3 hotel segments (compared to Chains and Independents), where all of distribution channels listed had an even split of between 10-25% contribution assigned to them. Unsurprisingly, the Cost of Distribution was indeed ranked 3rd as a measured KPI..

Throughout the survey, Management Companies indicated having more control, or insight into their data (Q7, Q8, Q12, Q16) with the analytics resource allocation devolved to property (Q16) being a contributing factor to this – due in part to obvious organizational structure differences to their chain counter parts.

This also represents itself in their approach to data storage and system selection (Q12), with proportionally high investments into both data warehouses (15%) and 3rd party business intelligence tools (30%) compared to the general response (10% and 20% accordingly)

The advanced but property orientated organizational structure reveals itself in Management Companies propensity (Q20) to manage SLAs and model forecasts than Independents and for obvious dependencies, low use of data for negotiations purposes compared to the Chains.

## 6.4 Independents

### Main Takeaways

- OTA Fees & Cancellations the most collected data (Q7)
- Balanced inventory mix (Q9)
- Low investment in education & analytics resources (Q16)

Independents made up 60% of the respondents and have a high impact on the overall general findings of this survey. Interestingly, despite an obvious insight that Independents set aside lower resources for data analysis, as a category, they recorded high engagement for in-house data collections, especially in the areas of:

- i. Guest Data (69%)
- ii. OTA Fees (54%)
- iii. Cancellation & Modifications (52%)

Quoting the obvious Rime of the Ancient Mariner quote “Water water everywhere but not a drop to drink”, it is instantly obvious from the subsequent systems (Q8), storage (Q12) and resources (Q16) data, that Independents are acutely aware of their limitations to accurately collect, store and use data and therefore heavily rely upon 3rd party channels (Q10, Q11, Q14) that provide them with the greatest data conveniences, namely:

- i. Access
- ii. Frequency
- iii. Quality

Like Management Companies, Independents who openly rely on third party intermediaries for generating demand, presented a balanced approach to inventory allocation, with close to 37% actively working with up to 25% inventory all of the presented demand channels.

The dominance of OTAs as a distribution channel was quantified with only 5% of respondents having 75% or more inventory allocated to OTA channels and a further 17% having 50% or more. Q14’s focus on data challenges in some respects, acutely summarized the issues independent hotels face from a data and distribution management perspective with Data Quality, Integrations and Skilled Staff ranked as the top 3.

Based on these findings, it is clear that the onus is on channels, system provider and hotel associations to provide independent hotels with greater support.

## 7. Conclusions & Next Steps

One of the key conclusions that can be drawn from the overall survey results is that the industry collectively is not applying analytics sufficiently well to drive distribution strategy and operations. This failure can be attributed to the very real challenges that exist in data collection and storage, combined with the general quality and timeliness of the data.

High reliance for data on some systems such as the Property Management System (PMS) as the single source of truth and lack of standards or integration across other platforms point to an opportunity for hoteliers and hotel technology vendors to work more collaboratively to help current industry data management practices to evolve into best practices that deliver wide ranging operational efficiencies in the way data is sourced, stored and used for decision-making.

Associations like HEDNA, offer the ideal forum and opportunity to facilitate active dialogue and collaboration between the suppliers and users of hotel technology. Such a constructive environment can lead to more formal standards in data management from a distribution perspective being recommended and adopted. Further engagement between subject matter experts from the vendor and hotel groups will be orchestrated by the Analytics Working Group as part of this continued best practice work.

### Next Steps

To promote the study findings and prepare for next steps the Working Group will:

1. Promote awareness of the Study Findings publication via the HEDNA website and LinkedIn Group
2. Engage discussion during workgroup meetings
3. Organize a Best Practice Roundtable to take place during the HEDNA conference in Lisbon, 4-6 June 2018. (As part of the format, vendors and hotel participants will be invited to discuss and share their experiences and recommendations).

At the HEDNA Winter Conference in Austin, Texas, a number of possible next steps were suggested with a view to taking these findings forward and developing a set of best practice guidelines that the industry can recognize and adopt. The Best Practice section below sets out two specific ideas put forward.

### **Best Practice - Leveraging Existing Data**

One of the observations made at the conference, based on the survey findings, is that hotels are actually collecting a broader set of data than they actually make use of in order to make informed distribution decisions. This underpins a suggestion to identify ways in which hotels can leverage this largely already available data set. The best practice work would include:

- Defining the largely available data set and its sources
- Recommending the necessary data integrations and data cleansing techniques
- Defining the key performance indicators and their tracking frequency
- Suggested reports and/or other means for disseminating information in the organization

The goal would be to provide the hotels with a 'best practice tool-kit' that would enable them to implement more effective distribution decision making with relatively limited effort and capital investment by leveraging much of the data already available to them today in combination with the collective HEDNA analytics work group expertise.

### **Best Practice - Channel Data Collection & Storage Standards**

Although the industry is well served with global data collection and benchmarking organizations to assist in pricing and revenue management, these predominantly focus on more traditional hotel market segmentation and do not either cross-reference or specifically address areas such as:

- Channel Type
- Channel Segment
- Channel Category
- Channel Cost

As the survey findings revealed, this is impacted by data quality and integrations between different systems (e.g. Channel Management & Central Reservation Systems) where a high percentage of the required data is collected and stored but not used by the main data source, the PMS.

A suggestion for further best practice work is for the Analytics Working Group to encourage active dialogue with key stakeholders such as:

- Hotels (Chains, Management Companies & Independents)
- Property Management Systems
- Central Reservation Systems
- Channel Managers
- Benchmarking Agencies

A key objective would be to review current practices and develop an aligned approach to defining the data needs and standards for data collection, storage, mapping and benchmarking that would address some of the industries core data quality issues as well as the need for a more standardized approach to data sharing across platforms.

This suggestion for establishing best practices in improving data management at source for the improved use of data analytics by hotels in the management of their distribution channels relies heavily on hotel and vendor stakeholder collaboration in sharing data sources and operational processes and platforms. At the time of writing this is a suggestion being put forward, but the necessary resources have not been identified.





## About HEDNA

Founded in 1991, HEDNA (Hotel Electronic Distribution Network Association) is the only global forum exclusively dedicated to the advancement of hospitality distribution through strategic collaboration and knowledge sharing.

For over 25 years, the non-for-profit association has provided its members with networking platforms, educational opportunities and professional resources to help them navigate the ever-evolving landscape of hotel electronic distribution.

HEDNA works to optimize the use of technologies while influencing the development of current and emerging distribution channels. It promotes an open exchange of information and professional development among its members. HEDNA's global conferences deliver the most comprehensive information, insights and dialogue on trends in hotel distribution.

HEDNA is comprised of hospitality industry leaders and innovators. Members represent all areas of electronic distribution including hotels, representation and management companies, GDSs, switch companies, OTAs, tour operators, software and payment service providers, industry consultants and educational institutions.

HEDNA is funded by the dues of its members and is governed by an elected Board of Directors comprised of Principal and Allied Members.

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HEDNA would like to thank the organizations and individuals that participated in the Analytics Working Group Survey project to document the distribution landscape and all those who responded to the survey and provided information and perspectives that collectively form the foundation for this findings report. This paper is primarily based on the findings from the Analytics Working Group. The observations and conclusions in this document are not intended in any way or form to reflect the views or perspectives of HEDNA and or the contributing organizations.

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