BI Case Studies:
First Generation Success Stories

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BI Case Studies: BI as a “Bridge Over Troubled Waters”.

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Recent History of MAA & the Role of BI:

- Headquartered in Memphis, TN with approximately 80,000 units
- Formed via a merger of Colonial Properties Trust and Mid-America Apartments, LLC in October of 2013.
- While significant system overlap was in place, key systems such as Property Management, GL and Procurement were on disparate platforms making a Total Portfolio view difficult.
- An aggressive plan for consolidating across all platforms was completed in May of 2014. However, “blind spots” remained along some key disparate systems.
- An internal BI platform was utilized to consolidate information across systems that were in transition to provide consolidated reporting.
Key Activities:

• “Remind ourselves” of the definitions of key metrics. Ensure consistent definitions across the Legacy Portfolios. (What is Occupancy?)
• Create ETL processes into all disparate systems that correspond to data definitions and desired views of the data (i.e. “slices”).
• Evaluate reporting platforms of both Legacy Portfolios taking the best of both worlds.
• Evaluate software processes to ensure that consistent approaches are followed. Resist the temptation to customize software right now.
• Smooth Year-over-Year and even Lease-over-Lease views as much as possible while balancing historicals already reported publically.
• Aggressively pursue Policy and Procedure gaps between the Legacy Portfolios.
• Triage data needs in close coordination with Senior Management.
• Test results with the right Subject-Matter-Experts and push for formal sign-offs on accuracy.
Key Goals:

• Make the data easy to get to at all levels of the organization. Use the “Push” methodology rather than “Pull”.
• Provide drill-through from summary to underlying metrics.
• Ensure a good awareness of evolving and new reporting tools. Ensure that on-site teams understand how daily behaviors tie to resulting metrics.
• Ensure Senior Management is the first ones informed in order to gain adoption and understanding.
• Make the data as visual as possible.
Internal BI Examples:

• Start to leverage the “clean” historical data across the consolidated portfolio by providing visual historical trends as well as predictive performance.
• Wean ourselves off grid-based data by converted key “grid-based” data to dashboards.
• Enable a toolset that allows for a myriad of filters and scenarios to address the “unknown” factor.
• Examples:
  – Occupancy
  – Revenues
  – Turn Costs
  – Sales Performance
Post-Merger BI Goals:

- Start to leverage the “clean” historical data across the consolidated portfolio by providing visual historical trends as well as predictive performance.
- Wean ourselves off grid-based data.
- Enable a toolset that allows for a myriad of filters and scenarios to address the “unknown” factor.
- Examples:
  - Occupancy
  - Revenues
  - Turn Costs
  - Sales Performance
BI to Facilitate a Conversation: Pricing Call Notes Shapshot
BI to Review Recent Historicals
BI to Review Recent Historicals

Month to Date Average Occupancy vs Budget Gap

Prior 30 Days Move Ins vs Move Outs

Prior Month to Date Occupancy, Exposure, Rent vs Market Trend

#nmhcOPTECH @apartmentwire
BI to Review Recent Historicals
Predictive BI: OccuProphet
• Questions?
Building a Successful BI Foundation

Joby Byroade
Business Data Analyst
GID / Windsor Communities

Join the conversation:
#nmhcOPTECH
@apartmentwire
GID BI Data Sources

Data Warehouse

Primary Sources
- Property Management System
- Local Databases (HR, PAM, etc.)

Secondary Sources
- Lead Tracking
- Call Center
- Online Portals
• Successes
• Risks
• Design & Execution Tips
Successes

• Time!
• Subscription-based reporting
• Best-in-breed reporting tools
• One version of the truth
• Vendor-agnostic
Risks

- Data integrity
- Data freshness
- Bad analysis
- Poor documentation
- Vendor updates
Design & Execution Tips

• Create new primary keys
• Create a calendar table!
• Let users police the data
• Don’t be afraid to experiment
• What can vendors do to help?
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BI Case Studies: First Generation Success Stories

Randa McMinn
Vice President of Marketing
Essex Property Trust
Essex Business Intelligence

• Enterprise solution still in transition and getting organized
  – Working to streamline financial and operational definitions
    • **Financial**: budgets and actuals for all books
    • **Operational**: occupancy, prospect history, tenant history, unit history, historic rents, work orders, etc.
Essex’s Marketing “Business Intelligence”

• Trajectory currently pacing ahead of corporate BI team
• Journey for Marketing’s Business Intelligence
  – Identify & Organize key data points
  – Categorize the data
  – Analyze & Operationalize the data
Marketing Business Intelligence

• Path from Insights to Value

Challenge: being ahead of BI trajectory means we have to wait to automate models and align with other company streamlined reports.
Identify & Organize Key Data Points: Build a Picture
Categorize the Data: Customer Portrait

Demographics

Behavioral

Social

Situational

Transactional

Demographics
Categorize the Data: Prospect & Customer Journey

**Lead Capture**
- Yardi
- Nielsen and Census Data
- SQL Report
- Google Analytics
- Email
- Call Center
- Website
- Digital and Offline

**Prospect & Customer Journey**

**Lead Nurture & Qualification**
- Yardi
- Email
- Nielsen
- Credit Screening
- Google Analytics
- Digital and Offline

**Customer Engagement**
- Yardi
- Resident Portal
- Reputation Management & Social
- Customer Service Surveys
- Secret Shops
- Email

**Lead Conversion to Lease**
- Yardi
- CRM
- Prospect Portal
- Reputation Management & Social
Analyze & Operationalize the Data: Visualization Tools
Marketing Business Intelligence

• Path from Insights to Value

- Data Organization
  - Information Foundation
    - What Happened?
  - Descriptive
    - Why It Happened?
  - Diagnostic
    - What Will Happen?
  - Predictive
    - How Can We Make the Ideal Happen?
  - Prescriptive
    - Path from Insights to Value
For Predictive, Start with a Business Question

• Predictive Case Study
  – **Business Question:** How can we better target marketing spend to capture only those leads that are needed for properties that are truly facing exposure concerns?
  – **Solution:** Developed a predictive forecasting model to isolate the opportunity gap

Expriations + Historical/Seasonalities + Probability to Renew = Value
Make Better Decisions with the Right Data

- **Identify & Organize** key data points
- **Categorize** the data
- **Analyze & Operationalize** the data

"If you torture the data long enough, it will confess." – Ronald Coase
Thank You!

Questions?