**In Class Analysis #2**

**Data Warehousing at Your Company**

**Company: Brookdale Senior Living**

**Strategic Goals that a Data Warehouse Will Support**

A Data Warehouse is a pool of data produced to support decision making; it is also a repository of current and historical data of potential interest to managers throughout the organization. It provides tools to satisfy the information needs at all organizational levels for getting quick, accurate and insightful information. It is designed in such a way that users can recognize the information they want and access that information using simple tools. Following are the strategic goals that a Data Warehousing initiative would support in Brookdale:

* **Cost-Effective Decision Making**: A data warehouse will be able to channelize resources in a more efficient way and since the volume of data that can be collected and used for trending and comparison is very large, it becomes a cost effective decision making system. As they progress pursuing their goal of becoming a leader in the senior living space by effective use of IT, a data warehouse will effectively be at the heart of their IT infrastructure.
* **Better Customer Service**: The enterprise can maintain better customer relationships by correlating all customer data into a single data warehouse. Since Brookdale relies a lot on providing a better customer experience, implementing this system would give them more insights to achieve the desired result. This will enable them to reach their strategic goal of becoming the leading provider of wellness and healthcare solutions within the senior living industry.
* **Better Business Intelligence**: A data warehouse would store all the data and will be available in a form ready for analytical processes like data mining, reporting and other information derivative applications. Thus, having the right data would enable them to make more informed decisions. This will be beneficial in their strategic goal of maintaining competitive advantage through scale, operational synergies and critical mass.

**Operational Problems that a Data Warehouse Will Solve**

Data warehouses not only contain current data but are also loaded with data from different operational systems on a regular basis depending on the data and how frequently it is being used. Following are some of the operational problems that a data warehouse will be designed to solve:

* **Inventory Management:** The organization has to keep an elaborate inventory of the items essential for its residents. This is a significant operational challenge as inadequate inventory management practices can lead to significant losses. A data warehouse enables them to evaluate their practices over the years and define better processes.
* **Data Integration**: Every enterprise has a large amount of data and are organized by different domains in a data warehouse. A data warehouse differs from an operational database in a way that most operational databases have a product orientation and are only affected by any transaction that is happening in the database. On the other hand, data warehouse would give a more comprehensive view of the organizational data by integrating data from disparate sources of information.
* **Maintaining Occupancy Rates:** A data warehouse will help Brookdale get a better sense of their occupancy data over the year and thus enable them to predict future occupancy. An awareness of possible reduced occupancy and their causes will enable them to create better sales plans that would ensure high occupancy.

**Real-Time Data Requirement**

Real-time data can support quick decision making by providing the latest version of the truth in any division within the company. However, a real-time approach isn’t required for every part of a company's business (Rouse, 2010). For example, aggregating sales information and healthcare data for personalized services to customers are aspects that can afford a lag time in terms of data access. Long term strategies of providing collaborative insurance purchase agreements and expansion planning that are key areas of opportunities for the company do not require real-time data access. These metrics can be monitored by analyzing data on a weekly or monthly basis. Prioritizing the business segments that will benefit from real-time data access helps reduce the financial overhead in the implementation of such systems, which is a specific challenge for this organization. Nevertheless, for the organization to maximize benefits, near real-time data will be highly beneficial in the field of inventory management. For example, setting up alerts within the BI dashboard that prompts the purchase of necessary medicines for the residents when real-time data from the medical inventory is utilized. Also, human resource assignment such as emergency nursing staff allocations and providing alternate and quick occupancy options to customers can benefit from real-time data access.

**Functional Applications of Data Warehouse**

A well designed data warehouse will enable Brookdale to collate data from numerous sources. The organization will then be able to leverage this single source of data to gain valuable insights. Below are a few functional areas where Brookdale will be able to leverage Data Warehousing capabilities:

* **Sales Forecasting:** The ability to accumulate sales data from various sources will enable the organization to create effective reporting systems that can identify gaps in their current sales infrastructure.
* **Financial Analysis:** As the organization has numerous offerings and often has to deal with limited resources, they can leverage the information from a data warehouse for budget forecasting and identifying areas for potential cost cutting.
* **Service Analytics:** The ability to organize customer feedback from multiple sources and to identify key service metrics will enable them to improve customer satisfaction and achieve higher productivity.
* **Hospitality Analytics:** Brookdale will be able to use the operational data in the data warehouse to forecast room availability.

Apart from the above, we believe that the data warehouse will also be beneficial for them in the areas of Supply Chain Management and HR Analytics.

**Applications Most Vital to Them**

While all the functional areas identified above are vital to ensure long term success for the organization, we feel Sales Forecasting, Financial Analytics and Supply Chain Management have the potential to work in collaboration, in order to ensure that the organization remains on the track of profitability while being able to provide the highest level of support for its occupants. The organization will be able to study historical data from its data warehouse to identify migration patterns of its potential residents and to pin point areas of expansion. The sales forecasting function will be extremely beneficial in this task. At the same time, appropriate financial analysis and supply chain management practices that use data to make decisions, will ensure that the organization always has resources available to capitalize on potential sales opportunities, while ensuring the highest quality of service throughout. It is important to ensure that Brookdale, being a public company, is able to remain profitable for all its shareholders while being able to provide the highest level of service to its customers. An old age home cannot afford to make compromises on quality in order to make profit. Hence, the identified financial areas are extremely crucial for the organization.

**Possible Challenges in a Data Warehouse Initiative**

* **Sponsorship for the Project:** Given the fact that Brookdale Senior Living has been facing some financial challenges lately, there might be some hindrance in taking the initiative of a data warehouse implementation.
* **Data Quality:** Currently, the company may not have defined processes that allow proper preservation of the existing data. This might pose challenge as the data quality is essential in a data warehouse implementation.
* **Performance:** Structuring the data warehouse is critical which requires deep understanding of the underlying business. As the company doesn’t have defined global processes to monitor the functioning of various departments, building an initial overall design to provide a stable foundation may be challenging.
* **User Acceptance:** There are many challenges to overcome to make a data warehouse that is quickly adopted by an organization.  Having a comprehensive user training program can ease this hesitation but will require planning and additional resources.

**Primary Benefits Through a Data Warehouse Implementation**

* **Enhanced Decision Making:** Decision makers can retrieve information from multiple sources through the data warehouse, in real-time, based on their needs. Multiple departments within Brookdale Senior Living can thus benefit from such business decisions.
* **Data Quality and Consistency:** Data coming from different sources will remain in a consistent and standardized format within the data warehouse. This would enable different departments within the organization to make decisions in-line with the company’s strategic objectives.
* **High Return on Investment:** Compared to the cost involved in the implementation of a data warehouse, it’s benefits for the organization are enormous in the long-run. This initiative would generate new opportunities and improve the existing processes, that can boost the revenue and decrease the costs for the company.
* **Access to Historical Data:** The company doesn’t have the ability to use historical data. A data warehouse would enable them to analyze data from different time periods to understand trends and make future predictions.

# References

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