Problem Statement

The current state of data management in ABC Corp. is not optimal. The quarterly reports are generated by manually combining the results of queries from various database systems. The data sources are disparate. Certain areas of the business are using spreadsheets for their day-to-day operations. Manual intervention often leads to errors and inconsistencies in data. There is no centralized entity housing all the business data required to make important business decisions. As an example, if the business needs insurance sales data on customers above a certain age limit (e.g., 60) and claims data on the same customers to decide if starting a special loyalty program would be beneficial, then it needs to look into two separate database systems to achieve the query results. This is tedious and time-consuming. Also, there are too many steps in between just to obtain the data. Over time these problems will emerge as big blockers in important decision-making processes for smooth functioning of business and expansion.

Proposed Solution

We need to build a data warehouse where data from all the independent functional units of the business is stored. All database systems are in one place, it acts as a centralized source of data for the business. This will ensure consistency in data. Faster query resolution times will be possible and no errors, thus better analytics. The query results can be extracted and fed to any business intelligence tool that will produce visualizations that are self-explanatory and interactive dashboards which help business executives interpret what the data says easily without being subject matter experts. This will fuel effective decision-making in the business enabling it to serve customers better and be profitable at the same time. No unnecessary conflicts between

employees and smooth communication across all units. Less human intervention and more value addition to business processes.

Benefits

Once we develop the data warehouse, we will be able to reap innumerable benefits from it.

The primary goal of building the warehouse is to get quick insights out of current and historical data that will lead to in-depth analysis and hence lead to better business decisions just not about the present but about the future as well. As a healthcare insurance company, we need to ensure that we satisfy our customers and take care of our employees simultaneously. Thus, we need to provide value ensuring that the business stays profitable in the long run. Listing few of the many benefits:

Increased standards of customer service – We will store the organization's past and present data which we can't afford to store in transactional systems. By analyzing huge volumes of data per customer we will be able to provide personalized service based on their medical history and their association with our partner hospitals. We will be able to send them reminders for health checkups and recommendations of wellness plans resulting in better customer engagement and ensuring high-quality service from our end.

Optimized insurance sales and claims – We will be able to uncover hidden insights about customer behaviors and buying trends related to insurance plans. We can establish patterns by examining their past illnesses and processed claims. Based on those patterns we can develop different insurance plans for different sets of customers instead of selling the same plans to all. The plans can be focused on their age, medical background, birth records, allergies, etc. We can review and revise insurance compensation procedures from time to time aiming at different

target customers and increase profitability margins. More focused plans will result in increased sales and customer loyalty.

Efficient Reporting – As the data is collated now in a centralized place from where it can be accessed quickly in huge volumes at a time if required, we can integrate it with business intelligence tools to generate comprehensive and easy-to-understand reports. These reports can then be shared with non-technical managers and executives who can then get their questions about the business answered and provide in-depth reports to other business stakeholders.

Informed and Improved Decision Making - The business will be able to make informed decisions based on facts and statistics when the managers get a bird's eye view of the data. The data of each customer does tell a story that the business needs to decipher to come up with mutually beneficial product ideas. These decisions can't just be made based on intuitions. They need to be backed by concrete facts and figures and the behavior patterns of customers. So much data is generated each day which has buried insights that can potentially drive business growth and help it enter new markets.

Long-Term Cost Savings – We can identify high-risk patients by analyzing their health and claim history and help them before their health deteriorates and the company has to invest a hefty amount in hospital bills. Also, fraud detection will be possible by identifying duplicate claims. We can also pin down those healthcare providers that provide plans at a reasonable rate and thus form long-lasting partnerships with them.

Steps Involved

1. Determine business objectives and do proof of concept studies to establish feasibility.
2. Gather needs - both hardware and software

3. Collect and analyze information
4. Identify core business processes
5. Construct a conceptual data model
6. Locate data sources and plan data transformations
7. Implement the plan

Conclusion

Building a data warehouse is a big decision and requires significant capital and resources but the long-term rewards outweigh the initial setup and development cost. I strongly urge the managers to think about the benefits of a data warehouse and accept this business proposition.

References/Citations

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