Module 1

Benefits of data warehousing

Whether you own a digital agency or brick-and-mortar store, here are some of the benefits of data warehousing that can help your business grow and scale.

1. Maintain data quality and consistency

Your cloud data is not of much use to your organization if it's poor quality and inconsistent. A data warehouse can improve the quality and consistency of data coming from multiple sources, provided that you fix the errors in the transformation phase before you load your data to the data warehouse.

This preparatory stage (the Transformation part of the ETL process) includes removing duplicate records, putting all data in a standardized format, and correcting outdated data. When your data warehouse stores cleansed, high-quality information, you know you're using your investment to the fullest potential.

Let's take a practical example.

A customer service representative may be unable to reach out to customers about defective products and recalls because they lack details for those individuals. On the other hand, if a data warehouse contains a high percentage of duplicate records, the same customer service representative could have inaccurate customer or sales data.

In both cases, a data warehouse could be used to create a quality framework for all teams to follow and make regularly updated business data available to all users that need it.

2. Combine data from diverse sources

As different departments create new data, you need central data storage to keep it in one place.

Customer service, for example, may have information about how many people contact them about specific issues each month. On the other hand, the marketing department probably has data about specific campaign outcomes, such as whether they fell short or were successful beyond expectations.

Even within individual departments, data could live on multiple platforms, preventing a consolidated view.

Using a data warehouse, businesses can combine data from all those business processes and make it more useful to decision-makers. Ready access to information collected throughout the organization also minimizes the inconsistencies that occur if teams don't have unified data.

In a data-driven world, leadership can't afford to make a decision without information from all affected departments. In doing so, they may reach faulty conclusions that compromise the outcome and put the organization at risk that could be prevented.

3. Eliminate data silos

Long gone are the days of making decisions with gut instincts and educated guesses. Today's business leaders need fresh data to determine which choices to make, and the fresh data from various sources is provided by a data warehouse.

Effective data management is impossible without eliminating data silos — situations where individual departments control most of their respective information. A data warehouse can prevent those instances, making it easier for end-users to source the information they need without reaching out to other departments to get it.

When users can directly go to one place to get the necessary information and know it's updated regularly, they'll feel more confident using it to make decisions that impact a company's future.

4. Enable business automation

Data warehousing allows businesses to experiment with different forms of automation. Automating different steps within the organization can prevent costly mistakes and accelerate workflows.

For example, they can use software-defined workflows to automate data extraction and transfer, reducing the time needed to collect, process, and visualize information for stakeholders.

For example, with Whatagraph, you can automate each data transfer to your data warehouse by scheduling the data load frequency and putting the whole process on autopilot.

Companies may also automate data analysis and uncover insights faster than before. When users are aware of potential problems on time, they can start locating the root causes earlier.

And with insights from different data sources readily available in a data warehouse, every automation initiative is much easier to implement.

5. Learn more about your customers

Nowadays, it's understandable and expected that companies offer their customers personalized content. This way, brands increase the chances that people spend more time interacting with a service or website or cause them to spend more money on products.

For some companies, personalized recommendations are an essential part of their business model. For example, most Netflix users choose what to watch after the service's algorithm suggests content based on previous choices. The bottom line is that if subscribers enjoy what they consume, they're more likely to remain subscribed and have an overall great experience of using Netflix for entertainment.

Data integration is an essential component of customer intelligence, as it can provide answers to questions like:

- What are the customers' pain points, and how can you ease them?

- What factors make people more or less likely to complete a purchase?

- How did customer behavior change after a recent website redesign?

6. Gain historical intelligence of your business activity

Having the most current information about a specific aspect of your business is valuable, but it's still just part of the picture. Decision-makers often need to see how the organization has changed over time and use those insights to make more intelligent predictions and how different implementations have impacted the return on investment.

Data warehouses can contain historical information, allowing business users to call up the necessary information through a few queries. Using a user-friendly data warehouse visualization tool like Whatagraph, executives can even get the metrics themselves without any support from IT teams. Such capability improves productivity and keeps the workflow running smoothly.

7. Increase data security

As a business that regularly deals with customer data, your first priority is to protect the existing and prospective customers' information. However, keeping information in multiple locations makes data security issues even more challenging. Using PTaaS can help address these challenges effectively.

Since a data warehouse allows you to store data in one location, the data becomes more visible to your cybersecurity team so they can plan how to secure it.