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SNHU

DAT 220: Module 2 Exercise

1. **Source Data Systems: Identify at least two source data systems that are typical to an online retailer and that might be useful to a data mining initiative to better understand the retailer’s customers.**

The two source data systems I chose were account creation and mobile apps when it comes to an online retailer obtaining information on their customer through data mining. When customers purchase items online, most online retailers ask if the customer wants to create an account for the company or to move forward with the purchase as a guest. The creation of an account allows the user to save their information with the company, but it will also give the company access to the user’s information. Some companies allow users to customize their accounts to display likes / interests and prior purchases. Using the account, a company can customize its communication with each individual user to show special promos regarding items desired by the user. The ability to download a retail business mobile app will allow the user to be able to purchase items while on the move which gives flexibility and anytime access to the user. With the downloading of a mobile app, the company also obtains information of the mobile device that downloaded the app. The information from the mobile device allows the company to store and use information to send out customize deals directly to user of this device and it also gives the company the ability to obtain more information each time the user opens the app.

1. **Data Warehouse: Describe the contents of a data warehouse typical to an online retailer, emphasizing sources (transactional system, supply chain management system, etc.) and data subject areas (sales, customer, supply, etc.).**

The contents of a data warehouse for an online retailer would be information on their customers’ purchases and their customers’ information. These warehouses will store data regarding information regarding their customers’ needs and the businesses web traffic by users regardless of if they are customers or not. The warehouses will also be able to show which area of the business the customers have favorited and also any customers’ reviews about the product or company itself.

1. **Data Mart: Identify the benefits and limitations of a data mart that is sourced from the warehouse to support customer analytics for a typical online retailer.**

During my research, I found a site listing advantages and disadvantages of data mart. The following is the list of these benefits and limitations:

Advantages / Benefits (1):

* Data marts contain only a subset of the organization’s data. This Data is valuable to a specific group of people in an organization.
* Data marts are cost-effective as compared to a data warehouses, which can take high costs to build.
* Data Mart allows faster and better and easier access of Data. It accelerates the business processes.
* It contains historical data which enables the analyst to determine data trends.
* Data marts promote security as the access can be granular. HR people will not need access to Marketing Data marts for example

Disadvantages / Limitations (1):

* Many a times enterprises create too many disparate and unrelated data marts without much benefit. It can become a big hurdle to maintain.
* Data Mart cannot provide company-wide data analysis as their data set is limited.
* They are most cost effective than data warehouses but are also an added cost on the top of the data warehouse.

1. **External Data: Identify a source of external data a typical online retailer might wish to include in a customer analytics data mart. What benefit is gained by the addition of this external data? What challenges are presented by the integration of this external data source?**

With the use of big data, retail businesses can connect with external databases such as Google, YouTube, and social media platforms. A benefit for using the external data is obtaining information and data to obtain new customers by using the platforms to send out deals in the form of ads. A challenge when it comes to the integration of external data source is the data being received can be false information and it also allows the online retailer database to be open for attacks by security issues. These systems allow themselves to be open and place them in a high-risk situation and may only receive a low reward.

**CITATION:**

1. Mbnehaddou, Author: mbnehaddou, Author: says:, B. S. E. O. C., Company, B. S. E. O., says:, A. L., & AffiliateLabz. (2020, January 16). *Advantages and disadvantages of a data mart*. Artificial Intelligence. Retrieved September 11, 2021, from http://mbenhaddou.com/2020/01/16/advantages-and-disadvantages-of-a-data-mart/.