Data Warehouse Functional Requirements

BRD (Business Requirements Documents)

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Date:

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Revision history

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| --- | --- | --- |
| Name | Version | Date |
| Jeff | 1 initial draft |  |
| Morris | study draft | Feb 19 2023 |

Overview

* Because Amadeus Entertainment spans several countries and operates on three different systems, it has difficulty aggregating worldwide sales (including returns) at any time. The company also needs to analyze sales by product and geographic area.
* The company needs to evaluate supplier performance based on delivery lead time and promptness, order volume and quantity, trading and payment history, and store stock fluctuation records, regardless of brand, country, and transaction system. Historically, this activity has also been laborious.
* The company wants to be able to select certain customers based on demographic attributes, order history, and communication permissions and send them newsletters via e-mails containing promotional offers, regardless of which systems they are on, and record the customer responses, such as opening the e-mails and visiting the company web sites.

**Functional Requirements**

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| No. | Requirements | Priority |
| 1 | The business users need to be able to analyze “product sales” (that’s when a customer is buying a product rather than subscribing to a package) over time by geographic area, by customer demographic, by stores and sales territory, and by product hierarchy. The users also need to know the revenues, the costs, and the margin in U.S. dollars. Local currencies will be converted to U.S. dollars. | High |
| 2 | The business users need to be able to analyze “subscription sales” (that’s when a customer is subscribing to a package rather than purchasing a product) over time by geographic area, by customer demographic, by stores and sales territory, and by product hierarchy. In addition, the users also need to analyze subscription sales by subscription duration and lead source (in other words, where the customers are coming from). The users need to know the revenues, costs, and margins, evaluated every day for a period of one month. | High |
| 3 | The business users will be able to analyze “subscriber profitability,” which is defined as the projected annual revenue of the subscribing customer minus the annualized costs (including proportional indirect costs), expressed as a percentage of the projected annual revenue. This is analyzed over time, by geographic area, by customer demographic attributes, by stores and sales territory, and by product package. | High |
| 4 | The business users need to be able to allocate subscribers to specific “classes” based on the customer’s projected annual revenue and allocate them to certain “bands” based on the profitability. The classes and bands are used in the loyalty programs. These two attributes are updated daily. | Medium |
| 5 | The business users will be able to analyze “supplier performance,” which is the weighted average of the totals spent, costs, value of returns, value of rejects, title and format availability, stock outages, lead time, and promptness. | Low |
| 6 | The system will enable CRM users to select customers based on communication permissions (subscribed/unsubscribed, e-mail/phone/post, and so on), geographic attributes (address, city, and so on), demographic attributes (age, gender, occupation, income, hobby, and so on), interests (music taste, book topic interests, favorite film types, and so on), purchase history (order values, order dates, number of items, store locations, and so on), subscription details (details of packages, subscription dates, durations, store locations, and so on), and the attributes of the products purchased (for example, music genre, artist, film type, and so on) for the purpose of sending CRM campaigns. | High |
| 7 | The system will enable CRM users to analyze campaign results by viewing the following measures for each campaign sent to customers: the number of messages sent by communication channels (mobile phone text message, e-mail, or post), the number of messages delivered successfully, and the number of messages failed to be delivered (including the reason). For e-mail messages, the users need to analyze the following additional information: open rate, click-through rate, complaint rate, spam verdict, and trap hit rate. | Medium |
| 8 | For CRM analysis purposes, the data warehouse will store the customers’ old occupations, incomes, addresses, e-mail addresses, and telephone numbers, especially the subscribers (as opposed to the purchasers). | Low |
| 9 | The data warehouse will store the previous region and division of each store. There is a plan to reorganize the store hierarchy; that is, currently there are only five regions in the United States, but in a few months’ time there will be eight regions. Online stores are currently in a separate division, but in the future they will be in the same division as their offline colleagues. Reorganization like this rarely happens. This is the first time it has happened in the six year history of Amadeus Entertainment. You can expect the new structure to last at least three years. | Low |
| 10 | For requirements 1 to 7, when the data warehouse goes live, two years of historical transactional data needs to be loaded into the warehouse, except requirement 5, which should be one year. | Medium |
| 11 | The data warehouse will store the data up to five years online and five years offline. The offline data should be able to be accessed online with two days of notice. | Low |
| 12 | The system will enable the store managers to view the data of just their own stores. This is because each store manager is responsible for different stores. This is applicable for both offline and online store managers. | High |
| 13 | At the store level, the ability to view the daily data in the past few weeks is important. The system should enable the store managers to see the ups and downs of sales, costs, and profitability, and they need to be able to drill down to any particular day to understand the causes of low sales or low profitability, that is, which products, titles, media, or customers caused the issue. | High |
| 14 | The data warehouse system will enable the global managers to understand the global trends and break them down by country. They do not need store level data or daily data. If a certain store or country is having a problem with a particular media, title, or product (for example when they are experiencing negative trends), then the managers needs to be able to communicate this to all stores as early as possible. | Medium |
| 15 | The report and OLAP will have an easy-to-use user interface. As long as the user interface enables the company to perform the analysis in this table and it is easy to use, the users do not really care about the details of the user interface. The numbers are much more important to the users than the layout. The data warehouse users understand that their job is to deliver business performance, and these numbers are the enabler. | Low |
| 16 | The system will be able to display the figures and charts and will be able to print. The users collectively agree that they will need charts and graphs, but if this feature is not available, they can export to Excel and do the graphs there. They will need an export to Excel (or to CSV) feature. | Low |