

# Demystifying Databases

## Why and How to Build a Profit Producing Data Warehouse

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We build a marketing database or data warehouse for the main purpose of more efficiently and profitably servicing our customers and prospects today and in the future. When a publisher has many titles or products, both on and offline, or is seeking to expand into new markets, having a data warehouse is a must.

For example, a publisher of several titles that also offers special online content such as webcasts or paid reports must have a marketing database. Without such a database a publisher would not know how to cross sell the various titles or online products or services most effectively. The fulfillment files for each would most likely be separate and distinct and not allow for an efficient usage of information for promotional decision purposes. And, even if all were fulfilled from the same source, the data would likely not be integrated at a customer level nor easily accessible for marketing.

Although a fulfillment file contains a wealth of information, its structure is rigid (built for fulfillment rather than marketing) and it lacks complete information about the customer and typically deals with only one product. Thus, alone it will not meet all of the needs to efficiently target communications to your customers or prospects across the company.

In this article we will discuss the key points that must be taken into consideration to ensure success in the build of a marketing database or data warehouse. In particular, we will discuss the following points:

- Why Build a Marketing Database
- Top Reasons Why We Fail
- What Functional Areas it Must Support
- Key Profit Drivers
- Who Will be Using the Database and What it Must Deliver
- What Should be Stored on the Database
- How Often Should the Database be Updated
- Dashboards and Other Tool Considerations
- Should the Database be Built In-house or Outsourced
- Quantifying Profit

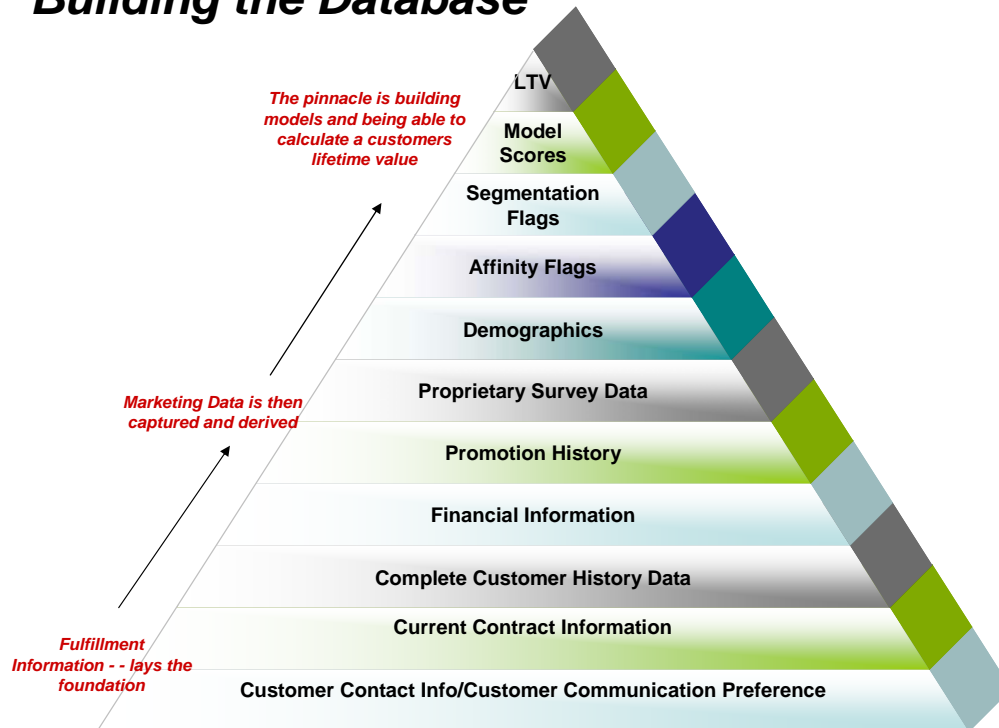
### **Why Build a Marketing Database**

There are three key functions of a marketing database:

- To most efficiently maintain your data in an organized fashion
- To better support corporate functions
- To better support marketing functions

All of which will allow you to better service your customer and hence maximize revenue. The pinnacle is of course to be able to calculate and forecast customer lifetime value as shown in Figure 1.

## Building the Database



*Figure 1*

The foundation of the database build is the customer contact information. From this we accumulate historical purchase and promotional data called our marketing data. For consumer magazines we then append demographic/psychographic data and for business publishers we then append Dun & Bradstreet (D&B) data including SIC codes. Lastly, we build scores and predict lifetime value using our data to help us make better future marketing decisions.

### **The Top Ten Reasons We Fail**

So why is it that many publishers fail in their attempt to reach the top of the pyramid? There are many reasons which include:

- Underestimating the time and resource commitment to build or maintain the database
- Not having the right support team in place once the database is delivered even if outsourced
- Not having a plan in place regarding how you will use the database once delivered and how you will quantify the benefits.
- Inappropriate in scope -- too broad or too narrow
- Not properly prioritizing deliverables – phased in approach
- Failure to shift the paradigm at the organization to an information-based decision approach
- Thinking that if you build the database profits will come
- Failure to realize that your number one priority in the build is getting the data right.
- Failure to fully assess costs of “add ons” relative to total database costs versus their benefits.
- Once you have decided to go forward with the build of the marketing database, not saving promotional history or other data which is typically overwritten at the fulfillment house.

It is not any one reason that causes failure but a combination of the above.

So how do we ensure success?

At a bare minimum a database should be a tool to maintain data. Some returns will accrue from better data organization, however, improved data organization alone will not cover the costs of the database. Supporting a wide variety of corporate functions makes a database work harder. A database shouldn't be just for the Marketing teams. By leveraging customer data to gain efficiencies, target better, reduce mail quantity and identify profit opportunities are the functions that provide the highest return.

### The Key Profit Drivers

There are many key profit drivers for any direct marketer of products or services. Some require high quality data in terms of cleanliness, relevance and organization. Some require high quantitative sophistication.

Figure 2 shows how various drivers of profit map in relation to data organization and quantitative sophistication. Some functions can be performed just by virtue of having all of the data readily available and in one place, others require the application of quantitative sophistication to complete.

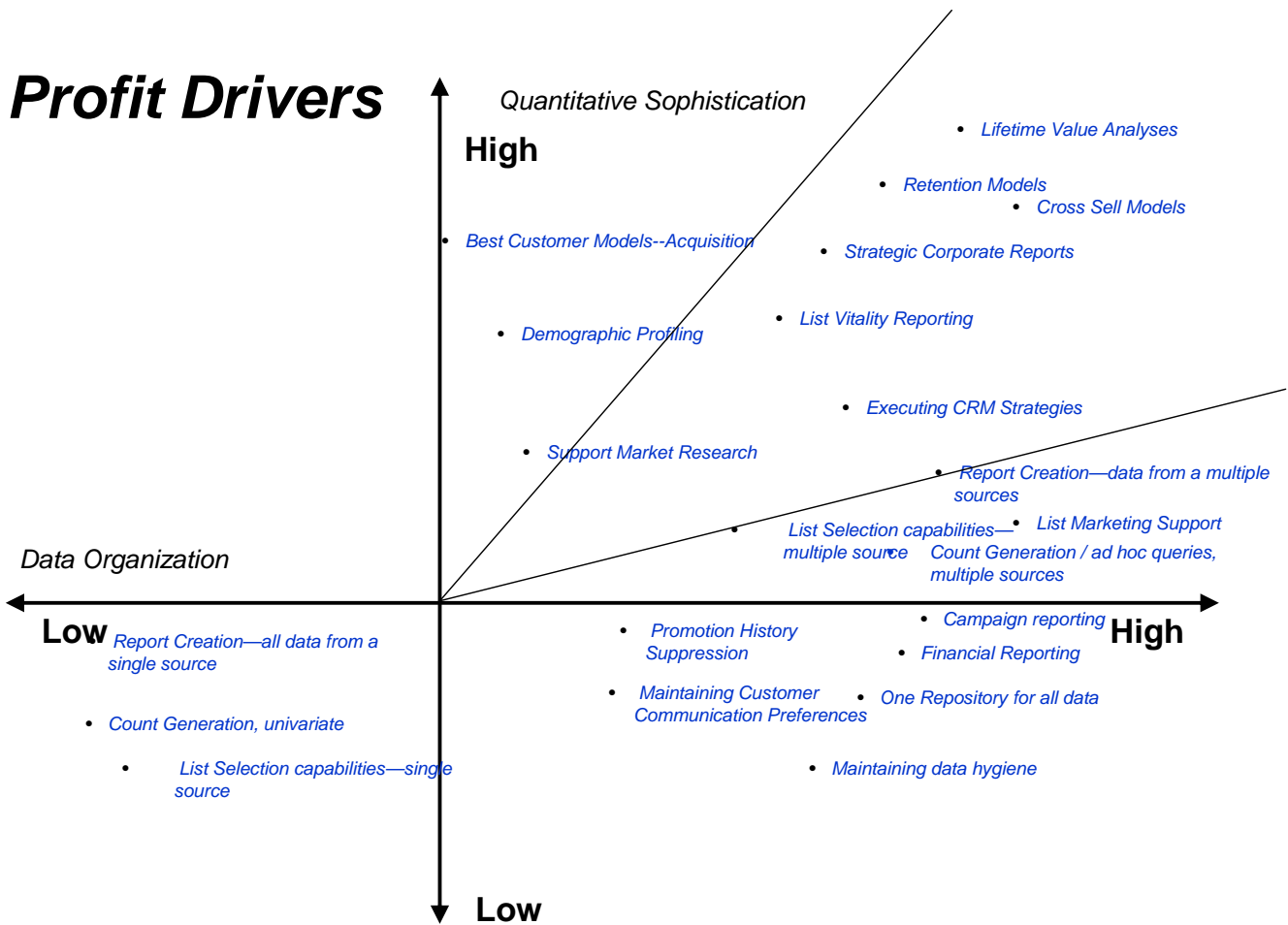


Figure 2

## Who Will be Using the Database

Keep in mind that there are many individuals throughout the organization that will utilize a marketing database. However, typically many of these needs are related in one form or another. As such, you will want to involve all in the decision process of what the database should ultimately accomplish.

Figure 3 illustrates the relationship between individuals as it relates their specific database needs and desires.

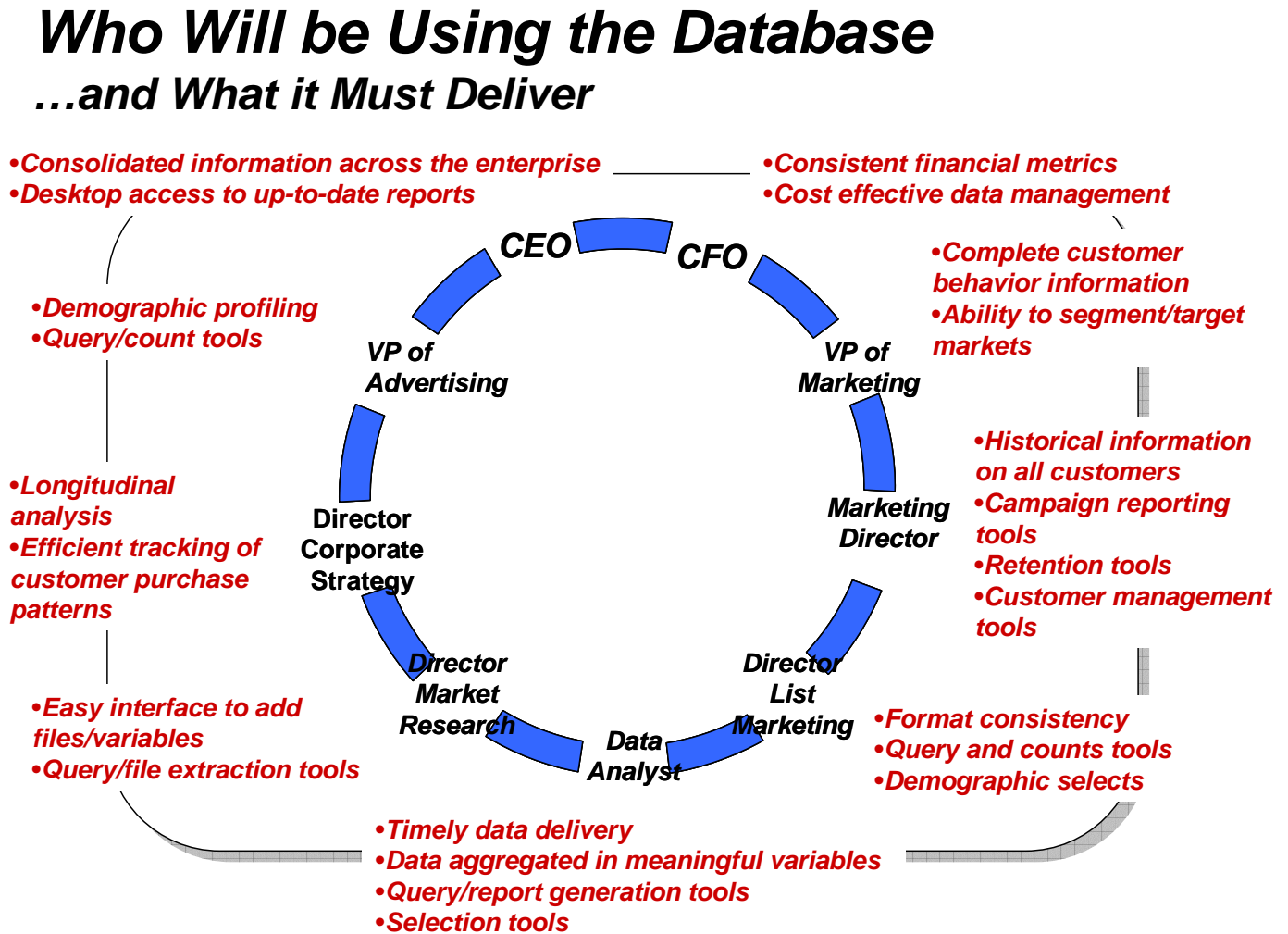


Figure 3

As Figure 3 clearly illustrates, many individuals will need similar access to the database and what it has to offer. For example, all functional areas/individuals will want some form of “dashboards” or other reports. To ensure success and keep the cost of the database in check, you must understand the relationships between the individuals so that priorities can be properly set regarding deliverables and features. It is best to build in phases ---start out small and build on each success. Remember this is a marketing database. The primary focus must first be to meet marketing’s needs. Other divisions can then follow.

## **What Should be Stored on the Initial Database**

There are two types of data stored on a marketing database: internal or house data and external or enhancement data.

Whether we are talking about consumer or business publications, internal data is comprised of fulfillment, marketing and customer contact data.

- Fulfillment Data
  - Last Bill Effort Sent
  - Total Dollars Paid
  - Expire Copy
- Marketing Data
  - Recency/Frequency/Monetary Data
  - Clickstream Data
  - Internal Survey Data
  - Customer Service Data
- Customer Contact Data
  - Name
  - Address
  - Email
  - Phone

For consumer publications, external data is comprised of census level, demographic and modeled data and for business publications, the external data is comprised of Dun & Bradstreet (D&B) data and industry classification (SIC) codes.

- Census Data (B-to-C Publishers)
  - Average Income in Zip Code
  - Average Age in Zip Code
  - Years Education in Zip Code
- Demo and Psychographic Data (B-to-C Publisher)
  - Individual Level Age
  - Individual Level Income
  - Individual Level Education
  - Hobbies
  - Interests
- Modeled Data (B-to-C Publishers)
  - Zip Cluster Codes
  - Other Scores
- D&B Data (B-to-B Publishers)
  - SIC Code (industry classification code)
  - Company Revenue
  - Credit Rating
  - Number of Employees
  - Public versus Private entity
  - Years in Business
  - Growth Rate

Internal data will be the number one priority of course. You will begin by converting your core fulfillment data over to the new marketing database. But, don't forget, you will also want to populate promotion data as quickly as possible. To do this you will need history. Therefore, as soon as you know you are going to build a marketing database, begin building history immediately and tell your service bureau to save the promotional files (both on and off line). Remember, knowing how many orders a customer placed is important but knowing how many promotions it took a customer to generate a specific number of orders is even more important!

Once these core elements are set you can then begin to enhance the file with external data. To keep the initial development costs in check, external data should be second priority.

### How Often Should the Database be Updated

Another issue that you must address when building a marketing database is how often to update the customer data. Customer data updates are driven by external factors:

- On what cycle is the data used? Weekly? Monthly?
- Availability of updated data
- Often times a database will employ differing update schedules by data source

You will also need a standard schedule for maintaining the integrity of your customer data as shown in Figure 4 below. Your database vendor should be able to provide guidance here but keep in mind that these processes will be an additional cost to maintaining the database and are required for data hygiene.

Process	Example Schedule
NCOA Processing	Monthly or quarterly for large mailers; two times per year for others.
Address Standardization & Customer File De-duping	As needed for legal and postal compliance
Householding of the Customer File	Annually for clean-up of duplicated records
Application of DMA Do Not Promotes	As needed or quarterly: The MPS and TPS are updated quarterly by the DMA.

*Figure 4*

### Tool Considerations

Remember the database build must come first. The initial focus must be on getting the data correct and setting up your campaign tracking reports.

After your core campaign tracking reports are up and running, then you can begin to discuss the addition of those sexy "dashboards" followed by tools for reporting customer counts, customer migration, customer profiling and data mining.

Keep your eye on the road or your costs will quickly spiral out of control.

### Should the Database be Built In-house or Outsourced

In determining if the database should be built in-house or outsourced, there are many things that must be taken into consideration. You must weigh the pros and cons of each for your particular situation. Everyone's situation is unique.

#### *Pros to Building In-house*

- Maintain control of database build
- Current staff and hardware expenses can be allocated to database

#### *Cons to Building In-house*

- Added work for an already busy IT department
- Expertise for database build and maintenance may not exist in house
- No vendor experience to advise on database usage and best practices

#### *Pros to Outsourcing the Build*

- Prior experience in the exact field of marketing database build and maintenance
- Knowledge of usage and best practices available
- Costs and timing predictable—based on contract
- Cutting-edge technology savvy

#### *Cons to Outsourcing the Build*

- Loss of complete control
- Possible uncertainty of the long-term stability (change of management, etc.)
- Give up proprietary techniques

### **Quantifying Profit**

The profit potential from a marketing database or data warehouse can be significant...but only if executed properly. To simply build the database is not enough. A detailed plan must be put in place as to how it will be utilized and how you will quantify the benefits. In addition, the organization will need to shift to an information based enterprise.

You can build the world's best and cleanest database but if you do not have a plan in place or the proper team in place to maximize the use of the database, it will be for nothing – guaranteed!

Eighty percent of database profits will be derived from acquisition efficiencies, retention efficiencies cross sell opportunities and the convergence of on and offline data.

Let's discuss how to achieve some of these efficiencies once the data warehouse is complete.

#### *Acquisition Efficiencies*

- For consumer magazines, determine worst zip codes for elimination.
  - Using zip level data and house data driven down to a zip code level you can determine zip codes that should be eliminated from your outside list mailings at the merge/purge stage.
- Using promotion history data and demographic/psychographic data for consumer magazines and D&B data for business publications, you can improve response.
  - Models can be built that utilize promotion history data to help you increase your response rate after the merge/purge process.
- With your new database, identify customers for cloning to assist in more efficient acquisition strategies for both consumer and business publications.

#### *Retention Efficiencies*

- Begin by building conversion models to identify likely first time renewals by source for each title or by affinity.
  - Conversion models in both the consumer and business publication space provide a huge payoff since a model can effectively identify “renewers” in an otherwise poorly performing source.
  - Efficiently converting subscribers and improving renewals at each contract has a compounding effect in the growth of a subscriber file.
- Next, build models to determine “non-conversion” renewals by source for each title or by affinity

- When you have many small titles of a related topic, it may be more cost effective to build a single model for all titles in that affinity rather than build separate models for each.
- Determine a subscriber’s renewal timing
  - Alter renewal notice cycle to accommodate late/early renewers based on predictive models
  - Saves on mailings that would not receive responses
- Reallocate renewal efforts by model score within a renewal class
  - For subscribers scoring at the top of the model (those most likely to renew), increase renewal efforts and for those scoring lowest, reduce renewal efforts.
- Determine a subscriber’s price sensitivity and “step-up” pricing strategy

#### *Cross Sell Opportunities*

- Combine products or titles fulfilled from multiple houses and off and online in a single marketing database
  - Different magazine titles or online offerings to feed into the same database
  - This creates the cross-sell potential
- Models will predict those most likely to purchase other products or titles
- Models will predict those likely to give a particular magazine title or other product as a gift
- Identification of the optimal product stream—maximize lifetime value of customer
- Utilize segmentation and regression models to identify best prospects for next offer.

#### *Staffing Efficiencies*

- Consolidation of data and various sources
- New tools
- More thorough and complete reports
- Ease of data access

#### *Process Efficiencies*

- Standardization of data feeds
- Efficiencies in list requests and inquiries
- Efficiencies due to data consolidation

Using the cost benefit analysis template shown below in Figure 5 you can estimate the savings a marketing database can bring your organization. Please realize that estimated savings are conservatively estimated and your resulting figures will likely represent the lower limits of what your organization can achieve should you embark on such an endeavor with a clear plan in place for development, maintenance and usage.

MARKETING DATABASE COST BENEFIT ANALYSIS	
OPPORTUNITIES	ESTIMATED \$ SAVINGS
<b>Acquisition</b>	
<i>Leverage promotion history to eliminate 5% of yearly mail quantity</i>	
<i>Acquisition models to improve your acquisition response rates by 5%</i>	
<i>Acquisition models to improve pay rates by 10%</i>	
<b>Renewal</b>	
<i>Renewal models to improve renewal rates by 1 percentage point at all contracts</i>	
<i>Timing models to eliminate one-third of the renewal efforts on subscribers with 3+ contracts</i>	
<b>Cross-Sell</b>	
<i>Increase response rates of cross sell efforts by 10%</i>	
<i>Increase response rates for gift business by 5%</i>	
<b>TOTAL ESTIMATED SAVINGS</b>	

*Figure 5*

Once determined you will weight these savings against the estimated cost of the database build.

Keep in mind the cost benefit analysis above does not take into consideration staffing efficiencies, process efficiencies and the value brought about by increasing customer insights throughout the enterprise. All of which will only make your bottom line look even better.

In summary, a database should be built to serve the entire organization. The metrics contained in the database should reflect those used by functional areas for decision making and access of information should be flexible and allow individuals to see the data they need in the most convenient manner.

The highest return on investment is delivered through higher level analytics including acquisition models, retention models and cross sell models.

But most important, be patient and take small steps when building your database to ensure success. Do not bite off more that you can chew or afford in the beginning.

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