

# Data Strategy Exercises

Sid Adelman & Associates, Inc.

- Data Strategy Exercises ..... 1
- 1 – Introduction..... 2
  - Assessment of existing organization..... 2
- 2 – Organization..... 3
  - Your Organization ..... 3
- 3 – Security and Privacy ..... 8
- 4 – Business Intelligence ..... 9
  - Readiness Test ..... 9
    - A. *Readiness Test for the Data Warehouse (DW)* ..... 10
    - B. Data Warehouse Assessment ..... 11

# 1 – Introduction

## ***Assessment of existing organization.***

What is the status of your organization's data strategy?

1. Do you have a standard for your relational database management systems (RDBMS)? What is it? How many RDBMSs do you have?
2. Do you have a process to measure the quality of your data? What is it? What is being done to improve your data quality?
3. Do you have a meta data repository? How well does it function? What meta data do you have in the repository?
4. What standards do you have for data security?
5. How effective is your data modeling activity?
6. How well defined is your organization as it relates to data?
7. Is your organization's culture attuned to sharing of data?

## 2 – Organization

### ***Your Organization***

Describe your organization in terms of the existing defined roles and responsibilities, the number of people in each area, full-time vs. part-time, matrix vs. line responsibility, and where they report.

Skills and capabilities will be categorized as follows:

- 5 – knowledgeable and experienced in data warehouse,
- 4 – trained and knowledgeable but with limited experience,
- 3 – some knowledge but training and mentoring definitely required,
- 2 – very little knowledge but trainable,
- 1 – the CIO's brother-in-law

Indicate gaps in both assigned personnel and skill level as well as any organization issues that could result in problems.

Examples:

### **Existing Organization**

| <b>Role</b>                   | <b>Number</b>     | <b>Skill Level</b> | <b>Reporting</b> | <b>Reports to</b>            |
|-------------------------------|-------------------|--------------------|------------------|------------------------------|
| DBA                           | 5 – full<br>time  | 3,4                | Direct           | DBA Manager                  |
| Delivery Applic.<br>Developer | 12 – full<br>time | 2-4                | Direct           | Applic. Develop.<br>Managers |

## Required Organization

| <b>Role</b>                   | <b>Number</b>    | <b>Skill Level</b> | <b>Reporting</b> | <b>Reports to</b>                |
|-------------------------------|------------------|--------------------|------------------|----------------------------------|
| DBA                           | 1 – full<br>time | 4                  | Matrix           | Data Strategy<br>Project Manager |
| Delivery Applic.<br>Developer | 3 – full<br>time | 4,5                | Direct           | Data Strategy<br>Project Manager |
| DA                            | 1 – full<br>time | 4,5                | Matrix           | Data Strategy<br>Project Manager |

Now use this matrix to **justify your need for resources, skills and training.**

**Existing Organization**

| <b>Role</b>                   | <b>Number</b> | <b>Skill Level</b> | <b>Reporting</b> | <b>Reports to</b> |
|-------------------------------|---------------|--------------------|------------------|-------------------|
| DBA                           |               |                    |                  |                   |
| ETL Developer                 |               |                    |                  |                   |
| Delivery Applic.<br>Developer |               |                    |                  |                   |
| DA                            |               |                    |                  |                   |
| Data Quality<br>Analyst       |               |                    |                  |                   |
| Data Strategy<br>Architect    |               |                    |                  |                   |
| User Liaison                  |               |                    |                  |                   |
| Technical Services            |               |                    |                  |                   |
| Security/Audit                |               |                    |                  |                   |
| Web Administrator             |               |                    |                  |                   |
| Query Tool<br>Administrator   |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |

Be sure to include the time you will need to bring in, train, and familiarize these new people with your project and the data.

**Required Organization**

| <b>Role</b>                   | <b>Number</b> | <b>Skill Level</b> | <b>Reporting</b> | <b>Reports to</b> |
|-------------------------------|---------------|--------------------|------------------|-------------------|
| DBA                           |               |                    |                  |                   |
| ETL Developer                 |               |                    |                  |                   |
| Delivery Applic.<br>Developer |               |                    |                  |                   |
| DA                            |               |                    |                  |                   |
| Data Quality<br>Analyst       |               |                    |                  |                   |
| Data Strategy<br>Architect    |               |                    |                  |                   |
| User Liaison                  |               |                    |                  |                   |
| Technical Services            |               |                    |                  |                   |
| Security/Audit                |               |                    |                  |                   |
| Web Administrator             |               |                    |                  |                   |
| Query Tool<br>Administrator   |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |
|                               |               |                    |                  |                   |

1. Who in the organization (this is probably more than one person) must be convinced that an organization change is necessary?
2. Who in the organization (this is probably more than one person) must be convinced that more resources are necessary?
3. How do you plan to make the pitch for an organizational change and/or for more resources? *discussion*

### 3 – Security and Privacy

Identify the data in your organization which has the most sensitivity for security and privacy.

| Data | Exposure | Data Owner | Rules/procedures for protecting the data |
|------|----------|------------|--|
|      |          |            |  |
|      |          |            |  |
|      |          |            |  |

1. Who in the organization is responsible for the security of data? This may be more than one person.
2. Will your data owners take responsibility for the security of the data under their wing?
3. List any known exposures that need to be addressed?
4. What is the relationship between the cost of security and the need for it?  
*discussion*

## 4 – Business Intelligence

### ***Readiness Test***

For each of the eleven questions, give yourself a letter grade. "A" being best, which means that you are right on top of that subject and it is under control. "B" being medium means that you are aware of that subject and you've started to address it. "C" being worst means that you either didn't know about that subject or it is out of control. Once you've graded the eleven questions, give yourself 10 points for each A, 5 points for each B, and no points for each C.

The recommendations underneath each question define the activities, which should typically occur for the topic in question.

Add up the points and compare your score to the following assessment results:

- |              |  |
|--------------|--|
| 100 points   | You probably cheated.<br>If you didn't cheat, then unless a comet hits your installation,<br>your success is guaranteed.             |
| 75-90 points | You are very well positioned for a successful implementation.  |
| 55-70 points | There are still some important issues to be addressed, but if<br>they are addressed, your data warehouse project could well succeed. |
| 30-50 points | You need to step back from an impending failure and understand<br>that the data warehouse is not in the cards right now.             |
| 0-25 points  | Reconsider the early retirement package.   |

**A. Readiness Test for the Data Warehouse (DW)**

Complete this if you have not implemented any significant data warehouse applications. If you have, go to Section B.

1. Have the mission and the objectives for the DW been defined?
  - A Yes, completely
  - B Partially, we are working on it
  - C Management does not believe a mission and set of objectives are necessary
  
2. Do the mission and objectives of the DW map to those of the enterprise?
  - A Yes, the DW is expected to support and satisfy the organization's strategic direction
  - B The DW will indirectly contribute to some of the organization's goals
  - C No enterprise mission has been defined or there is no mapping
  
3. What is the quality of the source data?
  - A The source data has some problems, but we will clean up most of it before it goes into the DW, and identify suspect data
  - B We will clean the data as best as we can
  - C The data has severe problems or very little is known about the quality of the data
  
4. Are the skills in place to support the DW?
  - A DA's, DBA's, application developers, and user liaisons have been identified, trained, and committed to the DW project
  - B We recognize the demand for skilled support and we are working to staff the positions
  - C Management does not recognize that additional skills are needed
  
5. Is an adequate budget in place?
  - A Yes, the project has been budgeted and cost justified
  - B Some money has been allocated and we are working on getting the extra budget we need
  - C An inadequate, bare bones budget has been allocation, or no additional money has been appropriated to this project
  
6. Has supporting software (extract, cleansing, front-end tools, DBMS, etc.) been chosen and installed?
  - A Yes, all the software is in place, has been tested and has been incorporated in our DW methodology
  - B We are selecting software now that will give us the most benefit
  - C Very little has been budgeted for supporting software or management does not recognize the benefit of such software

7. Has the source data been inventoried and modeled?
  - A Yes, we have been using a modeling tool and have captured most of the anticipated source data. We know where the data comes from and have documented this meta data in a repository
  - B We will be able to use some of our existing data models, and we plan to use a repository for our meta data
  - C Modeling is not in the plan or management does not recognize the value of modeling.
  
8. Is there a strong, well-placed, and reasonable user sponsor?
  - A Yes, in fact the user is driving the project
  - B Users seem to be interested but a sponsor for the pilot has not yet been chosen
  - C No user has indicated an interest or users are hostile to the idea of including their data in the DW
  
9. Are the primary users of the Data Warehouse computer literate?
  - A Yes, they are eager to try new software and have used their PC's for years.
  - B Many of the users are actively using their PC's, only some are still reluctant.
  - C Few users are computer literate and will need a great deal of training, or users are afraid to use computers and want nothing to do with them.
  
10. Is the DW seen as a power grab by the DW Implementation Team?
  - A No, the DW has been embraced by most of IT
  - B Some developers are interested, but there is some resistance and concern about erosion of power basis within the application development community
  - C The DW is being strongly opposed by powerful factions in IT
  
11. What are the user's expectations for the DW?
  - A The users are aware they will not be getting everything on the first DW iteration. They know there will be missing data, problems with the quality of the data, and they understand they will have to spend some time training to be able to use the DW effectively.
  - B The users know it won't be perfect initially, but still have some unrealistic expectations that need to be addressed
  - C Users have grossly inflated notions of what they will be receiving. Any suggestions of deferring their immediate wants is viewed as a reflection of IT incompetence.

## **B. Data Warehouse Assessment**

1. How happy are the business users with the data warehouse? Do you know?
2. Does management believe the DW provides more benefit than it costs?

3. Do you measure benefits?
4. What metrics do you collect on the DW? Do you have service level agreements (SLAs)? What are they and are they met?
5. Are you satisfied with the software/tools/products you use? If not, why not? What relationship do you have with your vendors? Is the relationship satisfactory?
6. Describe the organization that supports the DW. Do you think it is optimal? How could it be improved?
7. Is your budget adequate?
8. Do you use outside contractors and if so, for which functions?

#### Workshop

1. List the applications that will have the greatest benefit to your organization.
2. Since organization factors will often determine which applications go in first, list which applications you feel will be the first to go in.

