

Success in Enterprise Information Management for Big Data: Seven Points

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Many enterprise information management (EIM) or data management programs don't live up to their potential and the advent of big data makes the need for enterprise data / information management even more important. EIM is the collection of disciplines (master data management, meta data management, data modeling, data warehousing and business intelligence, data quality, data governance) that enable the understanding and usage of data and information as an enterprise asset.

Enterprise Information Management is a mature field, but the advent of "big data" has made the need for enterprise data / information programs within organizations absolutely essential. The reasons for the critical need for enterprise data management as a success factor for any organization desiring success with their big data and analytics initiatives are: 1.) EIM's focus on enterprise governance of mission-critical data with policies and standards that make it possible for the organization to use that data for decision making; 2.) focus on high-level data quality that allows the organization to be able to trust the data operationally and analytically; 3.) organization of commonly used data into master data management structures to enable cross-sharing and reduce redundancy and reduce possible errors; 4.) data warehousing and business intelligence strategies that are founded on enterprise information management best practices and standards to allow business units to share analytical data as needed without worrying about differences in metadata or technology challenges.

Should an organization focus on enterprise information management before committing to big data? Or, should the organization choose one or a few EIM components to implement as part of their big data strategy, and then adopt the rest of EIM incrementally? Actually, a combination of both views is necessary for success – including enterprise and component-based aspects seems to be an essential ingredient for sustaining an EIM approach. The EIM program does not have to be large, but it must be sustained and continually progressing to be of any value to the organization, especially when combined with a big data/analytics initiative.

Major Points to Consider

1. Level of Effort

EIM initiatives require a continuing effort, they generally have recurring costs and require experienced management and staffing. All EIM programs require sustained commitment from executives, stakeholders and staff within the organization. Also, it is essential that the EIM program be started and maintained for the right reasons. Determining the right business goals is a fundamental necessity. These goals must be ones that organization will value for a long time (data quality, data accessibility, shared data managed collaboratively, etc.). The goals may be refined over the life of the program, but they should always relate to current business objectives for a successful implementation. These statements apply to the big data initiative as well, and the level of effort for the two programs will be the single most important aspect to consider when planning the approach.

2. Requirements

Meaningful business goals provide valuable requirements for data, process and technology, and this statement applies at an even deeper level when discussing big data and analytics. Business requirements define the scope, provide the focus and align the various EIM initiatives into a cohesive program (metadata, data governance, data quality, enterprise data architecture, data warehousing/business intelligence, etc.). Each organization will choose the EIM components they want to address initially and eventually. These choices, and the order in which EIM

components are addressed should be driven by the business requirements. If the EIM program has decided to implement only a few components in support of the big data / analytics effort, chances are that the choices will include data governance, data quality, master data management of some areas, business intelligence.

3. Structure

EIM attempts to integrate diverse perceptions about business and its use of data and information, making any EIM program an essential component of a successful big data / analytics initiative. EIM programs must be structured for shared understanding of the meaning and usage of data, which could be stated as a primary goal of any analytics program. This approach points to the establishment of a data governance program that has the enterprise as its ultimate focus. Establishing a formal data governance program as part of the big data / analytics effort is the single most important component of a big data / analytics project, since the data governance program will create the policies and standards for managing data and metadata by business units for business use. Without a formal data governance program, most analytics programs do not succeed.

Some approaches to data governance may include architecting the governance program for the enterprise but starting at a business unit or project level. The business data stewards that perform the activities of data governance in the business units are concerned with the data cleanliness, correctness, completeness and changes in definitions/usage, especially for analytical data if the program is focused on the big data initiative.

4. Scope

The important point to remember in an EIM initiative is that organizational or cultural concerns should not override the specific needs for which the EIM program is intended. Maintain the iterative nature of a solid development program, and ensure that the scope remains manageable, within an enterprise focus. Iterative data management development can carry relatively low risks and will enable the continuation of the program despite any financial concerns, with the eventual result of an enterprise approach to data management. This is extremely important if the initial focus of the EIM strategy was the start of a big data / analytics initiative. Eventually, the rest of the organization will see the value of enterprise data management and will want to incorporate EIM into operational data. That is good, but that is the time to start other EIM initiatives.

5. Conceptual Data Model

One essential point for successful EIM is the development of an enterprise conceptual data model. This model does not require a major effort, but its benefits are demonstrable. VERY few successful EIM programs do not have a viable enterprise conceptual data model and its associated metadata. Analytical initiatives need a conceptual data model, to show the subject areas that comprise the organization's data and how those areas are related.

6. Experienced Project Management

Experienced project management, with an EIM program focus, is another essential success factor. EIM is a program and as such requires program management skills and the EIM program manager needs a good understanding of each component of EIM, and its relationship to the big data program.

7. Build on Success

Although an EIM program is complex when viewed as a single unit, it can be made much simpler with the attention to each of the points made here, especially when the EIM program is

coupled with another initiative such as big data / analytics. Accept the enterprise complexity but focus on each component for each business unit, building the program in manageable portions, until the team reaches its stated goals.

In conclusion, following these seven steps should ensure that your enterprise information management approach is successful and is achieving the mission stated in the program's charter. EIM will ensure that your data is of high quality, accessible, understandable across the organization to all interested parties, and that your big data / analytics programs are successful, delivering actionable decision-ready information to the right people at the right time for the right purposes.