



Data Governance Good Practices and the role of Chief Information Officer

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Abstract

In this paper, summative approach has been show the role of Chief Information Officer (CIO) in the data governance which is one of the vital aspects of corporate governance. Nowadays the CIOs duties and responsibilities are more concentrated towards tools and techniques of the technology. CIOs typically believe business intelligence is implementing different architectures, Business Intelligence tools, virtualization, cloud computing etc. CIOs fail to live up to the 'information' part of their duties and thus failing to take into account the human element in information. The various data management practices and standards has been described in this paper which are considered as the best practiced data governance which need to be adopted by the CIOs in today's ever increasing competitive market.

Keywords: Data Governance, Data Custodian, Data Assets.

Introduction

It is a very well known fact that the basis of any argument is data. Data is the initial point from which any sound argument will start. Data has always been neglected, misunderstood and underestimated assets in corporate throughout the world. Initially there were too many data required to be processed manually and moreover the internal and external departmental processes moved very slowly. Centuries ago people relied on one another because they didn't know how to manage the data they are exposed to. On the other hand in today's generation, almost every single business in the organization is dependent on data for their companies to run and sustain in the market. It can be as simple as a database for recordkeeping to something as advanced as a computerized

system to help them generate millions in revenue; we all understand that managing accurate and complete data is of indispensable necessity. Companies do not realize the value in the data and do not know what to do with it once identified. But nowadays the scenario changed with the emergence of technology and the technocrats. For any data driven initiative data is very critical and valuable. Collected data when leveraged properly leads to better insight into operations and performance which in turn leads to quick and better decision making. Managing data resource saw the rise of Database, data mining, data warehouse etc. Companywide data, customer data, stakeholder's data etc. refinement, management, processing, retrieving lead the CIO's around the world think only towards the Large Data



centers, Virtualization, cloud computing etc which are considered as the need of the hour for both midsized and large corporations. While data and information is now easily available to us, data governance is something that is one of the primary objectives of Information management of the organization. Data stored and information flow in and out of the organization need to be governed for better control of the structure and design, storage, movement, security and quality of information. We forget how necessary data to be accurately maintained, secured and unmodified is. Data Governance is of concern to any individual or group who has an interest in how data is created, collected, processed and manipulated, stored, made available for use, or retired. Data assets throughout the organization need to be formally managed¹ (Pretlow, 2012).

Objective

The purpose of this study is to present a theoretical review of Data Governance, how it links with other organizational governance, its need in the organization and its good practices. The study has also been linked to the role of chief information officer or the chief data officer in good data governing.

Method

The study is based on a descriptive approach to describe the new emerging trend of data governance, necessary actions and standard practices. As such all information is secondary and achieved through studies of relevant literature

review primarily the websites on data governance.

Defining Corporate Data Governance

Corporate Data governance is not a hardware, software, or manpower solution. It is an organizational strategy and methodology for documenting and implementing business rules and controls around your organizations valuable data. It is bringing cross-functional teams together to identify data issues that impact the company or organization as a whole². Corporate Data governance refers to the overall management of the availability, usability, integrity and security of data employed in an enterprise³. According to The Data Governance Institute, Data Governance is "The organizational bodies, rules, decision rights, and accountabilities of people and information systems as they perform information-related processes"⁴.

Linkages between data governance and other organizational governance

Any governance program is about finding how to decide in order to be able to handle future possible complex situations or issues in the most controlled and efficient way. All governance programs rather are it corporate governance or data governance, are sharing the same goals⁵:

- I. Enable decision making
- II. Reduce operational friction
- III. Protect the needs of the stakeholders



- IV. Train management and staff to adapt common approaches
- V. Build standards and processes
- VI. Reduce the costs and increase the effectiveness
- VII. Ensure transparency

Why corporate would need a Data Governance Initiative

Data can develop new opportunities for business that is why data governance controls and reduce the risk around the data. Over the next two years, more than 25 percent of critical data in Fortune 1000 companies will continue to be flawed, that is, the information will be inaccurate, incomplete or unnecessarily duplicate⁶. The demand for trusted information continues to spiral upward. States currently own significant data resources, but turning that data resource into an information asset that can be managed for effective decision making is simply not happening at an enterprise level. There are effective point solutions within specific agencies but managing information as an enterprise asset will require effective data governance⁷. Data theft, data loss, data quality are some serious data related issues resulting out of lack of data management and governing. A data governance program can help the organization in data quality management by enforcing data standards and definitions and coordinating the data quality effort. Data Governance program participates to find out the correctness of application of the legal standards and regulations followed in the organization. The process to apply them in an

organization is not always easy and the consequences of an incomplete or incorrect application might be severe. That is why good governance is a must. Missing security often leads to data loss or theft of data especially in huge corporations where it is not always possible to track the access and ownership of data. Data governance can limit the risk by defining clear ownership and standard practices throughout the corporation⁸. Proactive data governance is necessary to ensure confidentiality, integrity, accessibility, availability, and quality of the data. Establishing data governance is a critical task for any organization. It requires defining the organizational vision, policies, and practices; gaining support of the stakeholders; implementing the program; and monitoring its success. By clearly outlining policies, standard procedures, responsibilities, and controls surrounding data activities, a data governance program helps to ensure that information is collected, maintained, used, and disseminated in a way that protects the individuals' rights to privacy, confidentiality, and security, while producing timely and accurate statistical data⁹. According to (Cabrera, 2009), Corporate Data Governance has not only the risk limiting and protecting ability of data but also helps in developing new opportunities. An organization having data governance program will have surely implemented clear data definitions, roles responsibilities as well as accepted by the organization will be easily able to react and integrate any business transformation and development and



adapt in very low costs. In case of merger and acquisition also a mature data governance program will be of lots of benefit because any party having the good data governance program can justify the company's value and worth. A CDI institute report (Zornes, 2006)¹⁰ on Data governance says that with an operational corporate data governance program, businesses are more likely to benefit from:

- Uniform communications with customers, suppliers, and channels due to the veracity and accuracy of key master data.
- Common understanding of business policies and processes across LOBs and with business partners/channels
- Rapid cross-business implementation of new application solutions requiring shared access to master data
- Singular definition and location of master data and related policies to enable transparency and audit ability essential to regulatory compliance
- Continuous data quality improvement as data quality processes are embedded upstream rather than downstream.

Characteristics or objectives of good Data governance practices

Any good governance has eight characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law (Gisselquist, 2012).¹¹ Specifically Data governance

characteristics or objectives as cited by (Seiner, 2009) are to make and administer the public policy and affairs of data, to exercise sovereign authority of data, to control the speed or magnitude of data, to control the speed or magnitude of data, data regulation, control the actions or behaviour of data, to keep under control and to restrain data, to exercise a deciding or determining influence of data, to exercise political authority of data.

Data Governance failures at the initial stage

Data governance helps you control valuable data and information assets and assists you in making more effective use of the assets. The realization of data as a valuable and manageable organizational asset is one of the main business benefits of a data governance initiative. But some data governance initiative fails at the early stage. If these mistakes are carried out than whole of the data governance program will lead to a premature data work. Reasons of such data governance failures as cited by (Godel, 2010)¹² are:

- Not keeping faith in the data governance program and not believing that data governance program can solve the data problems. Giving less value to the program by considering it as nice thing to be done but not important.
- Absence of full support of the higher level management executives is one of the leading reasons for data governance failure. The management should not be allowed to focus on the cost of data



governance program but on the gain to be achieved from implementation of data governance program.

- Not having any metrics about the performance and current status causes a definite failure. The participants in the data governance should know where they are going
- Starting data governance program with ineligible staff will lead the data governance to a failure. If an organization requires Data Governance program and does not have the right resources, this is a good reason to fail.
- Client type approach should be avoided, otherwise data governance program is sure to fail. Approach should not be only customization.
- Loss of momentum leads to data governance failure. The momentum should not be slowed down after successfully completing projects within the data governance program, rather it should be increased.

According to (Nevala & Dyché), some of the mistakes of data governance are like failing to define data governance, failing to design data governance, prematurely launching a council, treating data governance as a project, prematurely pitching data governance with no defined procedure to validate, prioritize or resolve the ever-increasing flood of identified business problems whose root causes could be attributed to data issues. (Smith, 2009)¹³ cites that a data governance program fails

because there may be cultural barriers, lack of sustained senior business sponsorship, lack of demonstrated success, small as well as large, expecting change in few months, under estimating the amount of work to be done, planning too much and not doing the work, lack of sustained line and business commitment, No metrics, and no data governance program staff/office.

Role of Chief Information Officer/ Chief Data Officer/ Data Stewards in data Governance

Chief Information Officer (CIO) is a job title commonly given to the person in an enterprise responsible for the information technology and computer systems that support enterprise goals.¹⁴ The senior IT manager or CIO is responsible for the key IT initiatives of a company. The CIO focuses on strategic issues and the overall effectiveness of the IT organization. The senior IT manager or CIO is responsible for the key IT initiatives of a company. The CIO focuses on strategic issues and the overall effectiveness of the IT organization.¹⁵ Data Stewardship, as defined by (Seiner R. , 2007)¹⁶ involves "formalization of accountability for the management of the data assets. Data stewards have been around for a while. The traditional data stewards were responsible for collecting data, and converting it into a format suitable for the servers to consume it, and keeping the data for the systems they are stewarding up to date in the database."



As and when the concept of data governance will get broadened in this information age, the roles of data stewards, data officer or chief information officer will change and separated drastically.

The roles of each of chief information officer, data stewards or the chief data officer depend on the type of organization. In smaller sized companies the roles of different levels of management coincide with each other, management hierarchy is small; amount of task specialisation is less, the role of Chief information officer, chief data officer, and chief data stewards' role overlaps. CIO, data stewards or the chief data officer may be the same person. But as and when organization starts growing, becomes large and hierarchy oriented, amount of task specialisation increases and the job descriptions also differ. In this case to be named Data steward will be more appropriate who manages the data in terms of integrated, consistent definitions, structures, calculations, derivations, and so on.

The Chief Data Officer will face a number of challenges as he or she tries to establish the quality systems for the organization (Seiner R. , 2007) . A good data governance practices includes challenge navigating attributes of the chief information officer or the data officer. (Seiner R. , 2007) highlights the skills required by chief information officer.

- *Unique skills and personality:* The chief data officer or the chief information officer should not be

someone who is not only a technocrat. He or she should have a combination of business, technical and diplomatic skills.

- *Ensure Visibility of Data Governance Council:* The chief information officer or the data officer leads the Data governance council. Management commitment should be kept consistent and effective regarding the level of the data quality and hence raising the visibility and importance of corporate data.
- *Information volume:* The officer should be able to figure out a way to deal with the huge amount of data collected throughout the enterprise and also how to process in quick time and react to it.
- *Effective supplier management:* Today's organization is largely dependent on suppliers and thus huge data is generated from the suppliers. The data generated in these downstream are not always error free thus there should be some provisions for getting correct data.
- *Privacy Policy:* Investment should be made as regards to research work to discover new ways of decoding sensitive data but retaining its statistical value.
- *Policies and Procedures:* In order to establish a good data governance system, the CIO or the CDO have to take initiative to transform the organization from reactive mode to proactive mode.



According to the book written by (Berson & Dubov, 2007)¹⁷ on Master Data Management and Customer Data Integration for the Global Enterprise, the duties of chief information officer or data steward as Data stewards must help create and actively participate in processes that would allow the establishment of business-context-defined, measurable data quality goals. Regardless of whether a data steward works for a business team or acts as a "virtual" member of the team, a data steward has to be very closely aligned with the information technology group. Data steward would be most effective if he or she can operate as close to the point of data acquisition as technically possible. Finally, and in accordance with data governance principles, data stewards have to be accountable for improving the data quality of the information domain they oversee.

Conclusion

Effective data governance makes organizations more efficient by saving money, allowing re-use of data, and supporting enterprise analytics. However, data governance requires more than just a few members of the IT staff with a project plan. It requires participation and commitment of IT and business management, as well as senior-level executive sponsorship and active consultation with stakeholders of interest. The correctly built data governance program enables organization to effectively manage data assets due to assigned responsibilities and rules of the engagement. Most enterprises carefully

manage other assets (financial, physical and human) but overlook the immense value inherent in their data. Other business benefits include a reduction in data redundancy, improved business decisions due to accurate data from the recognized source of record, shorter time to compile data for business decision-making as well as increased user trust in data stored within the organization's databases. In the next five years, it is envisioned that some companies would in fact get forced to remove some responsibilities from the chief information officer, creating a new role of chief data officer to manage the their data and ensure its security due to the separation of duties required by legislation.

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