

## ***Harnessing data starts with a data management framework***

*This is not an endgame. A framework is a work-in-progress, tweaked along the way so that it yields unrivalled insights and propels the business forward.*

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Since the birth of the Internet and adoption of highly automated Enterprise Resource Planning (ERP) systems by many companies, there has been an unprecedented explosion in the availability of data. Many companies have switched from using statistics to extrapolate tangents and estimate population characteristics to using complex artificial intelligence (AI) to perform data-mining.

Good decision-making has often relied on good data, and pundits have likened data to fire - a great servant but poor master. There are many riches to be gained if one can harness data well; the Internet is filled with stories of how companies have reduced inventory holding costs or achieved increased sales bundling with smart data management and analytics.

Data management is not binary. One does not simply have or not have it and various risks and opportunities exist at different points on this continuum of data quotient in any company. To effectively make sense of your company's current data management framework, many start by assessing the current level of digitisation of their company.

A common misconception held by some smaller or more traditional companies is that many of their processes are paper-based and therefore they do not need to be worried about data management or data risks such as cyber security or other forms of data losses.

These companies may wish to examine their daily activities such as the use of off-the-shelf accounting software, customer relationship management systems, e-mail servers, online sales portals, point-of-sale systems, human-resource management systems and ad hoc Excel spreadsheets kept on personal computers before deciding if they are really as paper-based as they perceive themselves to be.

Chances are that even the smallest or most traditional brick-and-mortar companies are reliant on digital data in one way or another, and the loss or mismanagement of any of them will greatly affect their daily operations.

The other end of the misconception is when a company assumes that because it uses an ERP system, it is adequately managing its data. It is common to see many ERP enabled companies rely on "urgent" non-ERP approvals or records including paper, WhatsApp, WeChat or e-mail which are subsequently manually keyed or not even keyed and possibly distorting any data analytics performed. Even the best ERP systems can only assist in efficient data management but by themselves do not make for data management; ERP systems are tools, and like all tools, only as good as the one wielding it.

### **Data management framework**

A good data management framework is essential to navigating the data journey, one that has a beginning but knows no ends. Most companies start by mapping data and carrying out the following under a data management policy endorsed by the board of directors:

- Creating an inventory of the type of data being captured, point of capture, how it is captured, where it is housed and what it is used for;
- Determining the legal and other regulatory requirements applicable to these data. Some common legislations to note are the Companies Act, Evidence Act, Personal Data Protection Act (Singapore) and the General Data Protection Regulation (Europe);
- Setting data retention periods based on needs and legislations,
- Appointing suitable data owner(s) who will be controlling access to and usage of the data,
- Assigning criticality levels to the data and review existing security and backup measures in place. A disaster recovery plan and business continuity plan should be drafted and tested regularly,
- Establishing escalation procedures for any breach or violations of the policy and
- Performing periodic reviews of the policy.

As the company establishes or reviews its data management policy, it will be simultaneously performing a gap analysis of the level of data digitalisation against the current level of data management.

If there is data for which management is not able to adequately answer the questions above, a stop-gap plan should be quickly established and monitored to completion.

### **Optimising data management**

Once the basic data management policy is established, management should seek to optimise the use of data.

Management should first examine the effectiveness in using existing data to supplement management strategy and decision-making. A quick way to ascertain whether data has become part of the corporate culture is to review whether management has analysed data extensively before they determine the business strategies to achieve the company's goals. In these business strategies, what role does data play? Are there existing relevant data that has not been included? Is there

useful data that the company should start to collate? How is data fed into the continuous loop of objectives, strategies, risks and actions?

Analysis, review and consideration of relevant data should be at the heart of every management meeting and be part of the basis of all key decisions.

### **Managing data risks**

For companies with internal audit and risk management functions, the board or management should ensure that the internal audit team is familiar with and auditing the data management framework of the company in line with the International Professional Practices Framework promulgated by The Institute of Internal Auditors. The internal audit team should not simply review data as part of disparate processes as this will likely focus only on data accuracy and data integrity.

The internal audit team should also conduct a review of data security that goes beyond reviews of access rights and data backup controls. It should consider at a minimum, cyber security frameworks, phishing awareness programmes, training programmes for employees, timely patching of software, among other things.

At the next level, the internal audit team should actively employ data analytics in its audits to spot and highlight trends and correlations, and, in certain cases, perform full reviews of transactions. More advanced teams should thereafter be performing continuous auditing to ensure timely feedback of risks upfront.

### **Conclusion**

An optimal data management framework should be established and continuously updated to support the company's operations. It should include proper internal controls to mitigate risks effectively, serve as a key cornerstone of decision-making and be embedded into the corporate culture. Once achieved, good data management will yield unrivalled insights, allow faster responses and propel the business forward.

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