

Costing and Valuing Data, Information and ICT

Summary

Rather than being viewed as an asset and a source of value, Information Communication and Technology (ICT) is often seen as an expense on the profit and loss statement. For better or for worse, the business conversation is invariably around what is the cost of ICT? because the value of ICT and of the data and information it supports is often hard to quantify. The use of ICT to lower the costs of acquisition, management and ownership of data and information, with a focus on an improvement in customer service, is often the engagement point for a business. To aid business decision making, some considerations for the valuing and costing of data, information and the supporting ICT are presented.

1 Introduction

The application of Information Communication Technology (ICT) has delivered staggering gains in performance and significantly lowered the costs of business operations. Indeed, ICT is now so integral to what business does that like labour, buildings and plant and equipment, the conversations is now all about the cost and performance of ICT.

ICT is a business and is subjected to the same views as any other area of business and the business conversation is invariably around what is the cost of ICT rather than what is the value of ICT?

2 General Value

Data, information and the supporting ICT have intrinsic values to the business that are often hard to define but which play a key role. This intrinsic value often reflects the value business gains from the data and the use of ICT and more particularly, how they use that to business advantage both strategically and operationally.

Some intrinsic values include:

- Value to a competitor – This is the simple question, what would the data be worth to a competitor? Whilst it is hard to value

this, the role of ICT clearly lies in managing the data, providing to the business and in protecting the intrinsic value of the data.

- Lost value through inactivity – Value is also seen in terms of lost value because an ICT solution was not implemented at the right time for the business, e.g. how the Internet has changed the market dynamic for information providers.
- Competitive advantage – Data, information and ICT can provide a competitive advantage that can be sustained for a period of time, which has a value to the business. Likewise, a loss of advantage with cost to the business can result. Whilst the numerical value of this is not always known to the business, the value is often intuitively known and realised.
- Innovation – The advantage that ICT can bring a business can be quickly negated by a competitor that realises a similar outcome. Often, the advantage lies in the innovation that comes from the ICT and the opportunity for application and realisation of the innovation.
- Cost to recreate – The value of ICT is also seen in the reduction of the need to recreate data and when required, reduction in the cost to recreate data.
- Flexibility – ICT can provide business with value through the flexibility ICT can provide in the taking of offerings to market and in reducing the time to market.

For ICT, the business case is not always about cost, it can also be about strategic and operational opportunity for the business. That is, the value of ICT often lies in what ICT can do for the business from a business development and growth perspective. This means that ICT needs to be pro-actively selling what it can do for the business.

3 Cost versus Value

First, the practical matters of cash-flow management mean that a business often considers the cost and NOT the value of an activity. Consider a company that buys a vehicle for delivery purposes. Standard accounting sees the value of the vehicle

depreciated over a fixed period to a notional value, which is the value of the vehicle on the books of the company at this time. The fact that this vehicle is still being used to deliver value for the business is a separate conversation.

A business buys a 4-point power adaptor out of petty cash at the supermarket. The fact that 5-years later four staff still use the adaptor to do their every day business and would stop without, is a separate conversation around value. The cost to the business was the cost to purchase and its current worth is the depreciated value.

Second, business looks at the cost now in the context of the current business environment. In our previous examples, the fact that a vehicle may be 10 times more efficient and cost the business 10 times less than a horse and cart is not the conversation the business has. The business is concerned with current cost within the present environment and the conversation is how to lower costs now and into the future.

Third, costs need to be transparent and tangible. The cost to make a car or a meal are invariably fully itemised, costed and transparent (Cost of Goods). The value is known because of the sale price and savings can be seen in wastage and other areas.

When it comes to knowledge workers¹ however, the unit cost of selling, processing and managing a superannuation policy or an insurance policy are often unknown. This means that many of the costs are hidden, with weak benchmarking, making it harder to identify the cost benefits of ICT.

Where these issues relate to ICT are as follows:

- ICT is a cost to the business - Like electricity and buildings, ICT is an enabler of business and sits in the expenses category of the Profit and Loss (P&L) statement. When CIOs and ICT practitioners value the expenses within P&L and can use ICT to contribute accordingly, the business is likely to respond. Selling the value of ICT is a both a different and a difficult proposition.

¹ Knowledge workers take information from disparate sources and combine it to service the needs of customers.

- Cost in the current environment - It is the cost of ICT in the current environment, with regards to cash-flow management, that is considered by the business.
- Hidden costs – Realising cost savings in hidden costs are, by their nature, seldom seen and maybe hard to achieve. It is head count that makes hidden costs tangible. The conversations CIOs and the ICT practitioners have with the business needs to be tangible and relate to head count.

If ICT is to be valued and ICT is to contribute to lowering costs, then ICT needs to differentiate between the business process that occurs and what ICT can do going forward to lower the cost.

Given the nature of the environment in which ICT operates and the way ICT is seen as an expense in the P&L, how does a business truly cost and value its ICT?

4 Documents

Of all of the data types (documents, spatial data, transactional data and database data), document creation and management is perhaps one of the easier data types to cost. From, this, ICT can then show how it would lower costs.

A document² has a cost of creation and a cost of ownership associated with it. The cost of creation would be either the purchase price (if sourced externally), or more likely, initially valued at how much it cost the organisation to produce the document.

Like any other item manufactured, the itemised costing of a document would be required and includes labour, cost of goods and expenses as appropriate.

Then like any other asset, a document should be tracked and managed. In addition, assets depreciate over time and asset management has a cost associated with it. Together, these form the cost of ownership.

Like any other asset management, the practicality of the approach and the value of the asset impacts upon the need for and the solution for asset management. Whilst the cost of office stationery is tracked to a cost

² For the purposes of this conversation, the term documents includes images and videos.

centre, the routine inventory management of office stationery is seldom cost effective. The cost of a vehicle and office furniture, however, is both tracked to a cost centre and the asset managed.

Similarly for documents. The paper clip equivalent may not even be tracked but those documents that cost thousands of dollars to produce, and they do, or those of major significance to the business, would be managed as assets because of both the need for accounting of expenditure and their value to the business.

The cost of document creation would be set against the respective cost centre(s) and the asset value recorded accordingly. Whether the asset value of a document is included within the balance sheet of the business is not discussed here.

Whilst ICT contributes to the cost of document creation, most documents are now made using Word processors, publishing tools, e-mail and printing. So when compared with other costs in document creation, e.g. labour, ICT does not really provide a competitive advantage. Where ICT can lower costs and provided an edge is in the area of cost of ownership of the document (assets) for the business including:

- Asset management and tracking.
- Financial management of a documents cost of ownership.
- Ensuring the asset is kept current and accessible.
- Asset replacement management (version control and archiving).
- Distribution costs.

Further points to consider around document costing and asset management are as follows:

- Asset management - When any other asset was first subjected to a more rigorous asset management approach, the value of this process was questioned and the complexity questioned. Such asset management practices are now considered standard.
- Itemised costing - The itemising of costs, e.g. the manufacture of a meal, is often delayed because of the initial time to establish the correct costing processes. When the benefits of itemised costing are

realised, the need for the itemised approach is seldom questioned. Whilst the manufacture of a document often falls into the same conversation, it just takes one to realise the competitive advantage that the itemised costing approach can bring.

- Creation cost – The determinate of the cost of a document is as simple as: “how much would the business pay for this document in the marketplace?”. If the business would not source a document in the marketplace, then both the need for and the value of a document is questioned.
- Importance of process – Like many other business activities, it is not the process that is important, rather it is the actions instilled as a result of the process and the outcomes seen. The itemised costing and asset management approach to documents changes the thinking within business and drives the required cultural change.

Like any other asset, the value of the document (asset) is not readily determined and is subject to a range of variables, e.g. what is the value of an unsuccessful tender document that is recycled to write another tender in half the time that wins another tender of greater value? The conversations CIOs and ICT practitioners need to have include:

- Acceptance of the cost of creation and ownership of documents.
- Recognition of the need for document asset management.
- The role of ICT in facilitating the asset management process.
- The contribution of ICT to lowering the cost of ownership of documents.

By having these types of conversations, both ICT practitioners and CIOs show both their business understanding and business relevance.

5 Transaction Data

Another major source of information for a business that requires extensive ICT support is that of transactional data. If the valuing and costing of documents seemed a little daunting, then that for transactional data poses several challenges.

Placing a value on transactional data for the business depends upon what the transaction represents. Mislaying transactional data of a deposit transaction or billing transaction could result in the loss of that much money. Similar to previous discussions, it is more effective to focus on the cost of creation and cost of ownership of the transactional data.

Like the cost to produce a meal or a seat on a flight, the itemised costing for processing accounts payable, account receivable or treasury functions needs to be established by the business. The role of ICT in helping to lower the cost of processing the transaction data can then be realised.

The conversation with the business is how an expenditure on ICT can lead to changes in business processes to lower processing costs on a sustainable basis. As the ICT offering matures, the conversation CIOs and ICT practitioners have with the business is how processing costs can be further lowered.

ICT offerings include:

- Faster through processing.
- Reducing the number of reworks.
- Effectiveness in the handling of exceptions.
- Head count and skill set changes.

Again, the focus of the conversation CIOs and ICT practitioners will have with the business is on how to improve customer experience for a lower cost of service delivery. The value that ICT can then bring to the business is also seen.

6 Database Data

Similar to transactional data, database data forms the basis for many business operations. From customer contact details and customer management functions through to the location of assets and Web site content, databases contain volumes of data that can be used by different audiences to realise value in many ways.

Database data has two potential sources of values to the business. The first lies in the value to the business directly for its own use, and the second is in the on sale value.

Like other data types, the direct value of database data to an organisation is hard to

determine due to the number of variables and possible applications. The on sale value of a database is more clearly defined. The value is what the market will pay for the database, in part or in entirety. With an on sale value, the data can be valued and recorded as an asset on the balance sheet of a business. The business cases for the use of ICT to lower costs of creation and ownership can now be determined accordingly.

With database data, the role of ICT is to provide the most effective solution for the management and delivery of the database to meet customer needs. ICT can also be used to facilitate asset management of the database as well as help with maintenance and support.

Again, for most database data, the focus of ICT is on lowering the cost of data acquisition, data management and to lower the cost of data access within a business process and context. The significance of ICT lies in:

- Enhancing data capture tools with greater accuracy and reliability.
- Faster data retrieval.
- Rendering the correct data in the right part of the work-flow, including effective search and retrieval.
- Assistance in the handling of exceptions.
- Head count and skill set changes.

CIOs and ICT professionals can discuss with the business how to provide a better customer service for less cost because the power of ICT is effectively and efficiently leveraged by the business.

7 Spatial Data

Similar to the previous discussion of database data, is that of spatial data. Some spatial data can be valued because of its on sale value in the market place and included accordingly within the balance sheet of a business. From this market worth of spatial data comes a justification for the necessary ICT expenditure to return service to the business.

Again, for most spatial data, the focus is on the use of ICT to lower the cost of creation, management and distribution of spatial data. ICT can also be used to facilitate asset management as well as help with maintenance and support.

8 Moving Forward

Whilst this article has discussed the comparative value and costing of data and supporting ICT, for reasons of brevity, the detail on costing and valuing have been omitted.

What is also clear is that some data can be readily costed, valued and represented on the balance sheet, whilst for some other data, data it is probably better included within other asset valuations such as good will or brand value.

As with many business activities, the value of the process lies in changing behaviours and outcomes, rather than the process itself. In this regard, the valuing and costing of data, information and supporting ICT has much to offer. Actions for considerations are:

- Including the asset value of spatial data and transactional data on the balance sheet based on market value.
- Costing the production of documents and data, allocating to cost centres and leveraging ICT to lower the costs of ownership.
- Managing documents and other data sources as assets with the appropriate asset management capabilities, including depreciation.
- Rather than trying to justify the value of ICT to the business, use ICT as a tool to lower costs.

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