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THE BENEFITS OF EFFECTIVELY MANAGING INFORMATION ASSETS

Improvements in the management of an organisation's Information Assets delivers benefits, whereas poor information management incurs costs. Benefits from better management and costs from the lack thereof can be both tangible and intangible. The categories below, with examples following, have been identified by Experience Matters as accruing to our clients through the management of their Information Assets.

Realised tangible benefits and costs identified by category:

- Revenue foregone
- Costs incurred or saved
- Productivity created or destroyed
- Compliance
- Paper reduction

Realised intangible benefits and costs identified by category:

- Productivity created or destroyed
- Credibility enjoyed or embarrassment suffered
- Business continuity
- Safety
- Compliance
- Security and Access
- Discovery

REALISED TANGIBLE BENEFITS AND COSTS

Tangible benefits and incurred costs are calculated according to their nature with productivity based costs and benefits valued at the client's internal charge-out rates. The tangible benefits and costs identified by category include:

Revenue foregone

A global insurance company has approximately 1,000,000 boxes in storage. The contents of 20,000 boxes are unknown but it is suspected that they contain unprocessed claims representing untapped revenue against other insurance companies worth up to \$1,500,000.

Costs incurred or saved

Some decades ago, an oil and gas company constructed a gas processing plant, the final design of which was recorded in its "as built" drawings. More recently, corrosion by mercury led to the failure of an inlet manifold and related flange weld which caused an explosion. The organisation was fined \$84,000 for breaching the Occupational Health Safety and Welfare Act. Far more expensive, however, was the reconstruction of the plant which was hampered by the inability to find the "as built" drawings and the plant's reconstruction had to be reverse engineered from bits of twisted metal. See also Continuity below.



An exploration & production company with approximately 900 knowledge workers and 9,000 linear metres (10 linear metres per person) of hard copy material relocated to a new building. A hard copy reduction project was undertaken in which 24% of 9,000 metres was destroyed, 22% was identified for archiving and 6% had no owner. In total, a 52% potential reduction was achieved. The space saved, costed at a rate of approximately \$400 per m² per year (worth \$1,827,000 per year) is now used for break-out, meeting and collaboration spaces and more effective work spaces and storage. See also Paper Reduction below.

A council was able to reduce document storage costs by 73% and reduce business risk by rationalising storage providers. See also Paper Reduction below.

An organisation believes storing inappropriate documents off-site costs \$35,000 per year in storage and \$20,000 per year in retrieval.

A mining company used to spend \$30,000,000 per year in legal fees, of which between 5% and 25% (\$1,500,000 to \$7,500,000 per year) was spent on discovery. One action cost \$1,200,000 million of which \$300,000 would have been saved if the organisation had found its own documents.

Having been fined US\$400,000,000 an aerospace organisation undertook "to retain an independent compliance monitor." It was also fined £500,000 after admitting it had failed to keep adequate accounting records in relation to the defence contract for the supply of an air traffic control system. See also Compliance below.

An organisation believes improved access to documents will enable better defence of insurance claims, reducing annual premiums by \$150,000 per year.

An oil and gas company inadvertently destroyed seismic lines (maps of the sub-surface terrain created with sonar technology and costing approximately \$6,000,000 each) because they did not know which of these drawings were the most recent and accurate.

The inability of an organisation to provide drawings, documents, wiring diagrams, plant dossiers etc. incurs a surcharge of between 10% and 25% in offshore construction contracts.

An acquisition by a Malaysian multi-national conglomerate included a minority position in an un-developed oil and gas resource about which it promptly forgot. When the majority owner of the resource decided to develop the resource, the minority owners were informed of their share of development costs and the conglomerate received an unanticipated call for \$400,000,000.



Productivity created or destroyed

A global wine company dedicated to a programme of continuous improvement has a world class manufacturing operation, particularly its bottling plant. A winery manager decided to apply improvement principles to other parts of his organisation, specifically its information and knowledge management. With only 34 staff, the winery needed a pragmatic and cost effective solution. The organisation developed: a cursory but workable enterprise architecture; a folder structure that, matching the architecture, was intuitive to staff; naming conventions for documents; and email guidelines. Staff now knew what to keep, what to call it and where to put it. Shortly thereafter a worker in wine operations declared, "This is fantastic, we can find stuff". As the organisation could recognise the financial benefit of transforming unproductive activity into productive activity, a benefits realisation programme was implemented. Additionally, network monitoring was set up to see exactly whose behaviour had changed so good practice could be rewarded. \$91,000 worth of benefit was driven by those 34 staff members using their simple tools in three months, equating to a recurring benefit of \$10,800 per person per year without a cent being spent on hardware and software infrastructure.

Of a national legal firm's 150 fee earners, over 70% believe that with the right information they could invoice their clients an extra 30 minutes per day and another 20% think they could bill more than an hour per day. Potential revenue increase and cost reduction totals over \$13,300 per person per year. The Managing Partner declared, "You're all under confidentiality because this represents our single greatest source of competitive advantage, and if word of our inefficiency gets out into the market, we're toast."

A mining company has determined that business and mining professionals and managers spend 15 hours per month in avoidable filing, distributing and searching for lost documents. 15 hours x 11 months (excludes holidays) x 589 professionals x \$250 per hour (total salary package including on-costs) = \$24,296,250 per year.

Note: This client's internal charge-out rate is too high to be applicable across all organisations. An average salary of \$70,000 per year with 30% on-costs constitutes a rate of \$52 per hour.

Another organisation believes some knowledge workers spend up to 50 hours per month looking for documents. Their internal charge-out rate is \$150 per hour.

A consulting engineering firm estimates that if 5 minutes per day is saved, they will achieve a \$2,500,000 per year billable productivity improvement. 5 minutes per day x 5 days per week x 48 weeks per year at \$50 per hour for 2,500 staff = \$2,500,000.

An oil and gas company with an attrition rate of 22% believes it could reduce the catch-up time of new employees from 8 weeks to 4 with efficient handover. With a staff turnover of 130 people per year and assuming a total salary package of \$250 per hour, the opportunity cost is 160 hours x \$250.00 per hour x 130 staff = \$5,200,000.

A mining company that lost 152 staff in 12 months calculates that a new hire wastes 32 hours looking for documents. A senior manager estimates that he wasted 25% of his time in his first 6 months looking for documents. The organisation's opportunity cost is 152 staff x 32 hours x \$150 per hour = 729,600.00.

An organisation with approximately 100 staff and an internal charge-out rate of \$40 per hour calculated potential savings of \$728,000 per year in copying and distribution, retrieval, lost documents, filing and storage.



An energy utility spent \$7,000,000 implementing a well-known electronic records and document management system. The implementation failed because executives did not understand and communicate the value of improving the information and knowledge management of the organisation and users were not told of the benefits of improving the information management practices.

Compliance

Having been fined US\$400,000,000 an aerospace organisation undertook "to retain an independent compliance monitor." It was also fined £500,000 after admitting it had failed to keep adequate accounting records in relation to the defence contract for the supply of an air traffic control system.

Paper reduction

An exploration & production company with approximately 900 knowledge workers and 9,000 linear metres (10 linear metres per person) of hard copy material relocated to a new building. A hard copy reduction project was undertaken in which 24% of 9,000 metres was destroyed, 22% was identified for archiving and 6% had no owner. In total, a 52% potential reduction was achieved. The space saved, costed at a rate of approximately \$400 per m² per year (worth \$1,827,000 per year) is now used for break-out, meeting and collaboration spaces and more effective work spaces and storage.

A financial institution reduced its paper holdings excluding the central compactus storage from 1306 lineal metres of paper by 598.5 lineal metres to 707.5 lineal metres, a reduction of 45.8%.

An energy company reduced its paper holdings by 55% with the attendant reduction in costs.

In reducing its paper holdings a financial institution was able to hand back two floors of its Bent Street, Sydney building saving over \$1,000 per m² per year.

A city council reduced hard copy storage costs by 73%.



REALISED INTANGIBLE BENEFITS AND COSTS

Intangible benefits and costs are those that cannot be or have not been represented by a dollar figure. The intangible benefits and costs identified by category include:

Productivity created or destroyed

An energy company successfully implemented a business solution, not on the basis of the diligently created business case that articulated productivity improvements but on its ability to reduce unpaid overtime and to send its staff home on time. Needless to say, the initiative was welcomed and embraced.

A government-owned financial corporation used to take days to find the information required to respond to Freedom of Information and Ministerial requests. Since improving its information management, the organisation can now respond in hours and the CFO can personally respond in minutes. Additionally, past employees who are now working in other government agencies complain that the environments in which they currently work are painfully inferior to the one they've left.

Credibility enjoyed or embarrassment suffered

A multinational mining company almost lost an asset worth \$300,000,000 because a document was not lodged on time. A junior explorer registered its ownership of the tenement for approximately \$1,800 and fought to retain its rights. The tenement was returned to the original holder but only after Ministerial intervention and a High Court decision resulting in plentiful media coverage and extreme embarrassment for the Board and Senior Leadership Team.

A Health Department implemented the world's largest multi-campus Clinical Information System. Communication strategies and plans were developed to support the \$94 million implementation. After the communication strategies and plans were implemented, the Director of Hospital Systems was approached, independently and unsolicited, by the CEOs of three of the major hospitals. They requested that the project be documented as a benchmark or case study of how massive software solutions should be implemented. The CEOs had been highly impressed how each stakeholder group had been consulted and their requirements catered for. Each group knew how it would benefit them: the CEOs knew how it would affect their bottom line; the doctors knew how it would affect their work at the bed side; the nurses' union knew how it would affect its members' working conditions and the Minister knew how it would affect him politically. Due to the perceived value of the initiative to public health, requests by a newly installed government to reduce funding for the project were unanimously rejected and the project's budget increased from \$94 million to \$110 million.

Business continuity

After a plant explosion, an oil and gas company had to reverse engineer the reconstruction of its production facility from pieces of twisted metal because the plant's "as-built" drawings could not be found.

Safety

An energy company nearly killed an excavator driver because a project manager gave him an obsolete site plan that did not show the whereabouts of an 11,000 volt cable. The teeth of the excavator penetrated the plastic coating that protected the cable.



Compliance

The Australian Taxation Office was prejudiced against an organisation due to its inability to produce a document that was later found elsewhere. Its inability to produce evidence was viewed as non-disclosure.

Security and Access

A global defence company views its Information Technology Department as the organisation's "single greatest business inhibitor".

Discovery

The acquisition of a rival by a mining company yielded 80,000 boxes of documentation, one of which contained a pair of working boots and half a cup of coffee casting some doubt on the quality of the information therein and the cost of managing it.

An oil and gas company could not find insurance documentation covering a \$100,000,000 accident it suffered when a tug hit an off-shore platform.

POTENTIAL BENEFITS - SUMMARY

Experience Matters' research suggests that, on average, the potential benefits from improving information management practices are approximately \$20,000 per employee per year. Reconciliation with global research indicates that this figure is slightly conservative.

Industry	# staff	Benefit / person / year	Total benefit / year
Local government	1,000	\$ 8,571	\$ 8,571,000
Wine	34	\$ 10,700	\$ 364,000
Law	150	\$ 13,300	\$ 1,995,000
State government	7,500	\$ 20,133	\$ 151,000,000
Mining	1,100	\$ 22,090	\$ 24,296,000
Oil and gas	1,102	\$ 27,000	\$ 29,754,000
State government	150	\$ 33,133	\$ 4,970,000
	11,036	\$ 20,021	\$ 220,950,000

^{*} Total benefit /year divided by total # staff



COMMUNICATING THE BENEFITS

It's important to recognise that different stakeholder groups have different interests. In public health, for example, Chief Executives are interested in service levels and risk, the doctors are interested in conditions at the bedside, the Nurses' Union in their members' working conditions and the Minister in political ramifications. A useful lens to view this through is operations versus the business and benefits can be manifested in:

Working Level Benefits	Enterprise Level Benefits
Reduced time looking for documents	Increased productivity and improved service
Less time spent in unproductive activities	delivery
Reduced error rates	Reduced cost of operation
Less rework	Better, faster decision making
Reduced accidental destruction	Risk mitigation / reduction
Improved version control	Increased ability to initiate or defend litigation
Improved office space utilisation	Improved compliance
Less time required to induct new employee	
Ability to identify trends and analyse situations	
Increased collaboration	
Ability to identify mistakes or fraud	

CONCLUSION

Information management initiatives and, even better, continuous information management improvement are difficult to justify. Amongst many other reasons the benefits of effective information management are typically intangible, intertwined and difficult to crystallise. Yet, as shown above, they are substantial.

Where do you start? People know what information is important to them; they use it every day of their working lives and they care when they can't access the information they need to do their jobs in an accurate and timely fashion. Start by assessing your organisation's information management maturity and determining the implications of current information management practices. With regard to helping you build the case for information management improvement, the results are usually surprisingly good.

For more information, please contact:

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