Aging ERP

When Old ERP is Too Old

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Aging ERP: When Old ERP is Too Old

Enterprise Resource Planning (ERP) software is designed to be the system of record for operating and managing a business. With ERP having its roots as far back as the mid-sixties, it is not surprising that over 40% of our survey respondents are employing ERP systems that are over seven-years old and more than 7% are over 15 years old.

Aberdeen's June 2010 report *ERP in Manufacturing 2010: Measuring Business Benefit and Time to Value,* found that companies derive significant operational benefits from using ERP to help manage their business. But the age of the ERP system can have an impact on the continuing benefits that companies can achieve. This Analyst Insight will look at the performance of companies that have more recent ERP implementations and compare them to companies that have ERP systems over 15-years old.

Some ERP is More Equal than Others

As was shown in Aberdeen's April 2011 report, *To ERP or Not to ERP: In Manufacturing, It Isn't Even a Question*, there are distinct and measurable operational benefits for companies running an ERP system. But Figure 1 shows that there are also distinct differences in operational benefits depending on the age of a system.
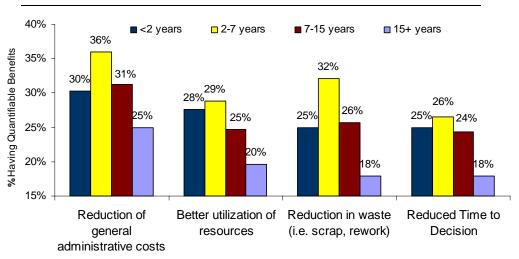
Figure 1: Benefits from ERP Implementation?

Source: Aberdeen Group, May 2011

You can quickly see that the benefits form a fairly obvious bell curve with ERP systems between two and seven years old forming an ERP sweet spot. As an example, let's take a quick look at administrative costs. Companies

Analyst Insight

Aberdeen's Insights provide the analyst perspective of the research as drawn from an aggregated view of the research surveys, interviews, and data analysis

How Old is Your ERP?

832 companies surveyed responded with the age of their primary system

√ 18% had an ERP system less than 2 years old

√ 41% had an ERP system between 2 and 7 years old

√ 34% have an ERP system between 7 and 15 years old

√ 7% have an ERP system older than 15 years

with ERP systems between two and seven-years old have almost 30% more reduction in costs than companies with systems older than 15 years. There is even a 15% difference with systems that are between 7 and 15 years old.

What is also interesting is that systems that are within the first two years of implementation are also lagging behind the systems that have been in-place for two to seven years. It is most likely that new systems are still rolling out and users are still becoming familiar with the use of the system. Systems more than seven years old are going to be based on older software infrastructure and possibly hardware, but users are typically very comfortable with the system. Systems older than 15 years are usually going to suffer from lack of integration and modern programming tools.

Where the lack of integration capability and modern infrastructure also show up is in metrics like "time-to-decision" as shown in Figure 2. The improvement in time-to-decision is fairly consistent from implementation to 15-years of age. But a 30% drop is experienced by users of systems that are 15 years old or more. This is a sign that integrating the ERP system to other systems and the ability to generate alerts and notifications is somewhat reduced in older systems.

What may be more important than overall benefits from the ERP implementation is the rate that those benefits are seen. As Figure 2 shows, the rate of improvement, while never going to zero, even on older systems, does start to significantly tail off after seven years.

> "We use a system that requires very little customization and can be supported remotely. Our older systems require expensive onsite support."
>
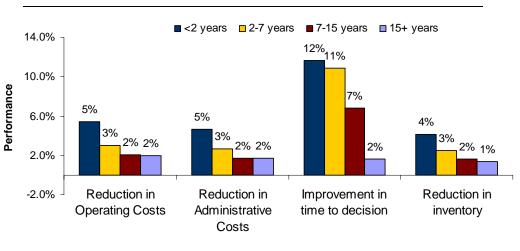> ~ Andy Schmidt, IT Director, Sun-Maid Growers

Figure 2: Rate of Benefits from ERP Implementation

Source: Aberdeen Group, May 2011

This is most likely a result of a combination of things:

- Age of the software infrastructure
- Lack of available modules
- Lack of support for the ERP system

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- Aging hardware
- Lack of integration capabilities

This doesn't mean that older systems can't be integrated and tied to other business systems, but it can cause ongoing integration work that is not supported with any automation features from the vendor (if the vendor still exists).

Using It and Not Losing It

In fact, Aberdeen research shows that one key aspect when comparing the age and performance of older ERP systems is how they are being used and how much they are being used. Figure 3 shows that users with newer systems that are less than two years old use over 10% more module functions than the oldest ERP users.
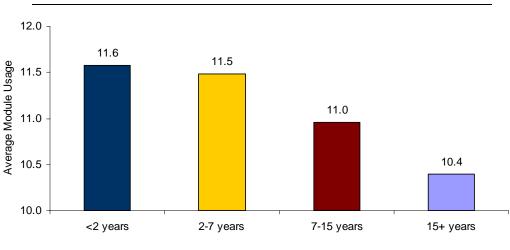
Figure 3: Module usage of ERP users

Source: Aberdeen Group, May 2011

Figure 3 reflects the fact that 15 years ago, some modules just plain weren't available. For example, Table 1 highlights some more recent modules that have typically only been available from ERP companies in the last 10 or so years.

Table 1: Specific module usage for ERP users

Modules Used	Less than 2 years	2 – 7 years	Older than 15 years
Human Resources	27%	33%	21%
Project Management	34%	29%	18%
Supplier Management	20%	16%	11%
Event Management	14%	10%	7%
Workflow Technology	26%	24%	11%

Source: Aberdeen Group, May 2011

Maintenance Costs by ERP Age

Not a huge difference, but the low number for the oldest systems is most likely due to lapse in support coverage

√ < 2 years old - 16.2%

√ 2- and 7-years old - 16.1%

√ 7- and 15-years old - 15.9%

√ older than 15 years - 15.6%
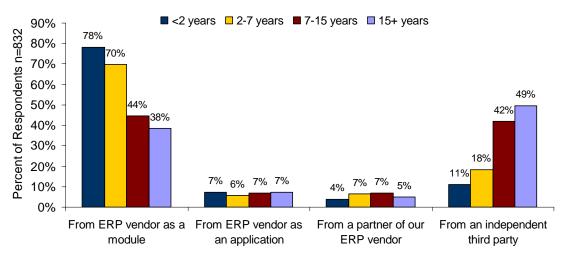
We can see that technology-specific modules like workflow and event management are especially lacking in the oldest ERP systems. But less mainstream and more recent ERP modules show some significant disparity in areas like project management, supplier management, and human resources. These are areas that, 10 years ago, ERP companies were just starting to offer as solutions.

One interesting aspect of this research is seeing where user companies buy their extensions for an ERP system. Figure 4 shows that there is a jarring distinction between new users and users of older systems.

Figure 4: Where do you buy your ERP extensions?

Source: Aberdeen Group, May 2011

By a fairly overwhelming margin of 40%, users of newer ERP systems get their extension applications from their ERP vendors, compared to the oldest systems. Contrast that to the users of the oldest systems being five times more likely to depend on third party vendors not associated with their ERP system.

There are several reasons for this disparity in how companies view ERP extensions:

- Greater availability of extensions from ERP vendors

- ERP vendors consolidating the enterprise application market

- ERP vendor release of messaging, integration, and middleware systems

- Lack of ongoing support for older, legacy ERP systems

"We sometimes have to pry a heavily customized system out of a plant's cold, dead hands."

~ CIO, $2B water valve manufacturer

Case in Point

At a recent ERP user conference Aberdeen spent some time with a director of IT for a large manufacturer of electrical components. He spent quite a bit

of time talking about his legacy ERP system running in one particular plant, even though the rest of the company was using a modern, manufacturing-centric ERP system.

"Every morning I come in to the plant, the first thing I look at is the green system light on that 3000. Then I can start breathing," is how he described starting his day.

The legacy system ran on a 20-year old HP3000 using a Unix operating system. The ERP system itself was considered off the shelf for the late-80's. His biggest concern is keeping the hardware running. His team scours auction sites and used computer shops for parts and stockpiles them for a rainy day. He has requested bringing the plant on to the newer ERP system, but the local plant manager refuses to allow it based on the concern over losing a custom costing system developed for the legacy system.

Comparing that plant to a similar plant using the newer system was an interesting exercise. This director has to keep three IT heads at the first plant, while the second plant's newer IT systems requires less than one body operating remotely. He also stated that the fist plant lacks local HR systems, supplier management systems, and alerting capabilities. These are all systems and capabilities that roll out as standard with the newer ERP system.
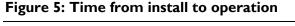
"I will have to wait for the plant manager to retire or a critical system failure to get the chance to get these guys moving," is all he had to say about his options.
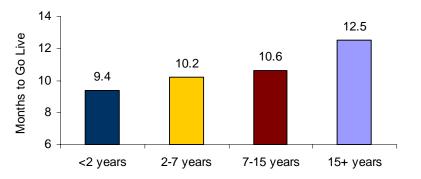
Getting it in and Keeping it Up

An area of distinction that may cloud some companies' decision-making around ERP strategies is time to get the system up and running. Figure 5 shows that newer systems take 30% less time from install to operation than the oldest systems.

Figure 5: Time from install to operation

Source: Aberdeen Group, May 2011

Subscription Payments for ERP

As one would expect, a significant difference in subscription licensing models exists between newer and older implementations

√ < 2 years old - 21%

√ 2- and 7-years old - 19%

√ 7- and 15-years old - 9%

√ older than 15 years - 8%

Figure 5 also gives a pretty good view into how ERP implementations have progressively improved from an effort standpoint over the last 15 to 20 years. It shows that ERP vendors, user companies, and implementation partners have become progressively better at getting ERP up and running effectively.

One thing that seems consistent in our research and in discussions with user companies is one of the key holdups to wholesale replacement of an older ERP system is customization. As in our case study, Figure 6 shows the difference in levels of customization between newer systems and older systems.

Figure 6: Customization and Tailoring of the ERP System

Source: Aberdeen Group, May 2011

The oldest ERP systems have twice as much customization as the newest systems. Figure 6 also shows one of the reasons for this situation. The oldest ERP systems are almost 40% less likely to be able to tailor their system without programming. This leads to higher IT support costs and more difficult system upgrades.

In fact Figure 7 shows that the oldest systems are 10 times more likely to be more than three releases behind on upgrades. The newest systems, as one would expect, are over twice as likely to be current or only one release behind over the oldest systems.

"We replaced our old and heavily customized ERP system with an up-to-date system and saw immediate improvements in operations cost and processing time."
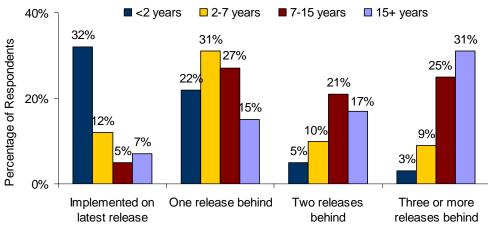
~ Patrick Scanlon, Director, EOC LLP

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Figure 7: Version status for ERP system

Source: Aberdeen Group, May 2011

How many ERP systems does your company operate?

Older implementations have more systems do deal with on average:

√ < 2 years old - 1.7 systems

√ 2- and 7-years old – 1.9 systems

√ 7- and 15-years old - 2.0 systems

√ older than 15 years - 2.9 systems

Key Takeaways

The age of an ERP system can have a significant impact on the operational performance of a company. An older system has several drawbacks:

- It limits the ability to extend functions through modules and extensions

- It slows the access to critical information for decision-makers

- The systems require greater support and staffing levels

- They usually require harder to find and higher cost IT skills

Recommended actions are directly dependent on the age of the system:

- If you system is less than two years old, just keep plugging away but make sure to keep it as current as possible. New and up-to-date implementations should give you operational cost improvements over between 3% and 5% for several years on average.

- Between two and seven years old, companies using ERP see 40% better performance in administrative costs than the oldest systems. If you system is at this ERP sweet spot, limit customization and stay as current as possible to maintain those benefits.

- If your system is between 7 and 15-years old, you are customizing almost 40% more than newer systems. Start planning how you can standardize the features you need to get current on your existing ERP system or replace it.

- If your system is more than 15-years old, you are providing decision-makers with 20% less information visibility than a company with in the ERP sweet spot. Unless your ERP system provides some unique competitive advantage, your senior management is at a

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disadvantage in trying to make timely decisions and your system should be replaced.

There are significant advantages to having a modern and up-to-date ERP system, either through replacement or upgrade. Not having a plan to replace older systems is just like shoving money into the drive of an 20-year old HP3000.

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research	
ERP in Manufacturing 2010: Measuring Business Benefit and Time to Value; June 2010 *To ERP or Not to ERP: In Manufacturing, It Isn't Even a Question*; March 2011	*Saas ERP: Trends & Observations 2010*; October 2010 *ERP: Is High ROI with Low TCO Possible?*; January 2011
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