

Mergers & Acquisitions

Software Value and Risks

Software value and the risks associated with that software value should be a primary focus when joining multi-disciplinary due diligence teams that are considering a target company for acquisition. While every target company is very different (and interesting), there seem to be some patterns in the due diligence exercises: they are always short notice, they are always urgent and due diligence on the software is usually an afterthought. Why? The main goals of the due diligence exercise are to validate claims made by the target company during the deal negotiations, to uncover any challenges that the target company inadvertently or deliberately forgot to mention and to try to quantify the consequential risks and risk mitigations.

During the deal negotiation, it is rare for either side to initiate an explicit conversation about the target company's software, and these situations can result in pleasant or nasty surprises. It will not surprise readers that there have been more of the latter.

How much of the target company's software is a real or potential asset to the M&A deal and how much is a real or potential liability?

In some respects, and for one set of stakeholders in particular - the investors - this is the "acid test" of software value. For example, excessive enhancement requirements stemming from the size and/or complexity of a software asset can lead to significant upgrade and maintenance costs, or worse, non-performing functionality. These, sometimes large, issues can remain unidentified until very late in the development lifecycle.

Those who have unexpectedly dealt with these problems often face a loss of clients as they struggle to adapt to the new demands placed on their software development departments by their acquirers. Pressured to meet sometimes

unrealistic budgetary and release constraints, perhaps due to excessive M&A transaction savings expectations, they find themselves understaffed and incapable of getting their software development back under control.

If the target company is not a software product or service company, but simply a business that uses software to implement its proprietary and standard processes, the question is not so much what the management of the organization thinks their software is worth, but what risks in the software could affect cash flow in the short and medium term. Many M&A deals are priced based on future cash flow and some are dependent on that cash flow to repay the loans taken out by the acquirer to fund the transaction.

The target's software risks can almost always be mitigated. For example, if the target company's software has a lot of defects, these can be fixed, but at a cost. In an M&A scenario, the trick is to establish a mitigation cost for each risk and include that in the transaction cost negotiation. The fact that the software risk costs do not typically emerge until during the due diligence process often creates some tension in the deal. This is because the expectations have been set around a certain deal value up front in the Letter of Intent, which then kicks off the due diligence process. You might expect that the party to get most upset about such revelations would be the target company and yet, in my experience, it comes as no surprise to the target company when their software value risks are identified. More often, some members of the acquirer's M&A team (who might be expected to be pleased with a reason to reduce the price) resist or seek to play down feedback on the target's

software value risk, because their job is to get the deal done. They are not necessarily accountable for running the target company or for post-deal operational costs.

While M&A valuation skills are widely available in the general sense, the vast majority of practitioners in the M&A valuation space are unskilled and/or inexperienced in identifying the opportunities and challenges presented by the software portfolios of their target companies. Sometimes, this is not an issue because software just isn't that important to the purchasing company or the purchased company. More and more often though, the unique value of the target company is embodied in their business processes, which are enabled in or dependent upon their software.

Prioritizing the software value and risk assessment based on business functions

As we think about the structure of the acquirer's valuation and risk assessment process, we should start by separating out the business functions of the target company (and their associated software) into those functions that are similar to the acquiring company and those that are different. Put another way, the merger or acquisition is usually happening either to grow the acquirer's capabilities and/or customer base in a business that it already operates or to diversify the acquirer's capabilities outside of the business that it already operates.

Similar functions of the target and acquiring companies might include, for example, finance and HR, but could also include other, more specialized business processes if the target is operating in the same business. Generally, the

software to implement similar functions should not be a high priority for M&A due diligence, because the acquirer will either use their own software (and dispense with the target's) or adopt the target's software with relatively little risk (because the acquirer is familiar with the functionality if not the specific software).

Different functions are most likely to appear when the acquirer is diversifying. Identifying the software that performs different functions to those already enabled in the acquirer's organization is important, because it starts to prioritize the evaluation of the target's software for value and risk. This can be the most difficult scenario for the acquirer, because the target company is conducting business functions that the acquirer may not fully understand. Also, the acquirer may have limited exposure to, or experience with, the software options available. Evaluating the business value and risk associated with the target's software for these business functions must be a high priority even though the default strategy will be to leave the existing software in place after the merger or acquisition. It is possible that the value of the enabling software will be a consideration in the overall value of the target company, particularly if it has been developed or customized by the target company and/or embodies unique business processes. The risk associated with the software becomes a bigger consideration in this scenario. If the target company has done (or commissioned) development or customization, there is a risk that the acquirer will not be able to maintain or extend the software if the target's developers are not available for any reason.

Some examples

Recently, there were two mergers of collections agencies where the majority of the working software was developed in-house and was tightly integrated with the ancillary software for telephone dialing, printing and so on. This made for very efficient operations, but in both cases, only two people were available who understood and could modify the code. None of these people actually worked for the target company! In one case, the risk was the retirement of the key people, and in the other, it was the extortionate prices of the subcontractor who knew that the target company had nowhere else to go. To be fair to the subcontractor, from their perspective they were charging a reasonable price for two highly-skilled developers with only one customer to fund them.

In both cases, while the default immediate post-acquisition scenario was clear – keep the existing software in place – it was equally clear that the pro forma budget for the combined entity for the next three years post-acquisition needed to include the cost of converting the target company to a new software platform.

It's important to note that the custom-built software sitting on the target company's balance sheet as an asset became a liability in the eyes of the acquirer, because of the money they needed to set aside to do the software platform conversion. Interestingly, in one of the transactions, the acquirer decided to convert both the target and its own existing software to a new platform to achieve operating efficiencies that would quickly pay back the investment. The risk became an opportunity!

The collections agencies examples highlight the most important software to be examined for M&A risk and due diligence: Software that has been built in-house, including that built by sub-contracted vendors. This software can have considerably higher value to the acquirer than COTS software if the target's in-house software contains significant intellectual property in the form of unique knowledge or implemented or enabled business processes. However, the in-house software generally carries higher risk because, prior to the due diligence process, the acquirer has no knowledge of the quality-level of the in-house source code.

What is considered high quality software in the context of an M&A? As with all considerations in an M&A situation, what's most important to consider first is financial predictability. Once financial predictability for the software is established, a decision can be made about whether or not the future financial implications of the software, and the degree to which that is certain, represents good value in the context of the deal.

For example, there was an acquisition where the target company had written and extended its own in-house software for its core business processes over many years. The software was fit-for-purpose and served the business well, but it was all the work of one developer who had been a subcontractor for years using an obscure database technology. The target company had attempted to mitigate its risk on the software by getting another third-party developer involved, but with minimal effort and a corresponding lack of success. Future challenges had started to

manifest themselves as difficulties (tricky coding, more time, more money) in interfacing to software for ancillary services based on modern technology. It was advised that the acquirer should continue the existing arrangement in the short term (short-term financial predictability), but post-acquisition, they should immediately start to move the target company onto a new software platform – ideally SaaS – for medium-term financial predictability.

In another example, the acquirer – a significant financial services provider – was seeking to jump start its move into another financial services sector by acquiring a smaller financial services provider. The target company had customized a standard package for a particular sector to enhance its competitive proposition in that sector. In the target's (and especially the target's investors) assessment, its investments in customization of the software package should be fully reflected in the deal price. Unfortunately this introduced some new tension into the deal so it had to be reported that while the software was indeed very suitable for the target's sector, much of the customization added no value in the acquirer's context and was not relevant for their intended market.

Figure 1 (on the next page) summarizes the default integration strategies and top-level priorities under each of the lenses (or management views) for two scenarios where the acquirer is buying or merging with a target company in the same business line or where the acquirer is diversifying.

Figure 1: M&A Software Value Assessment Priorities

Consideration for Assessment	Default Integration Strategy	Priority to Assess Software Value	Priority to Assess Software Risk
Acquirer and target function: Same	Use Acquirer's Software	Medium	Low
• Target build-buy lens: In-house	Use Acquirer's Software	Medium (may be better than acquirer's)	Low
• Target build-buy lens: COTS	Use Acquirer's Software	Low (unique value unlikely)	Low
• Target end-client lens: In-house	Use Acquirer's Software	Low (target's staff can be retrained)	Low
• Target end-client lens: External	Not clear – client retention may be important	Medium (What do clients value?)	Medium (Clients may leave)
• Target profit lens: For-profit	Use Acquirer's Software	Low (single platform likely to be less cost)	Low
• Target profit lens: Not-for-profit	Use Acquirer's Software	Low	Low
Acquirer and target function: Different	Use Target's Software	High	High
• Target build-buy lens: In-house	Use Target's Software	High (What is software worth?)	High (How much will risk mitigation cost?)
• Target build-buy lens: COTS	Use Target's Software	Low	Low
• Target end-client lens: In-house	Use Target's Software	Low	Low
• Target end-client lens: External	Use Target's Software	High (Is this a unique selling point?)	High (Could software lose existing clients?)
• Target profit lens: For-profit	Use Target's Software	High (Will be included in valuation?)	High (Will be included in valuation?)
• Target profit lens: Not-for-profit	Use Target's Software	Low (least cost, more important)	Low (least cost, more important)

Summary

If your company is acquiring another company, you should plan to integrate their software by working with the M&A team as early as possible to gather information about the risks and challenges you are likely to face during the due diligence process.

It is sensible to focus on the target's custom software that is part of their unique business proposition. It is likely that your existing software will replace any target's software where there is duplicate functionality. The custom software is more likely to be risky and difficult to integrate than any COTS software the target has in use.

Having identified the riskiest, most difficult applications to integrate, gather as much information about them as you can and plan accordingly. Measure twice and cut once!



Michael D. Harris, President & CEO, DCG Software Value

Michael Harris has more than 30 years of broad management experience in the IT field, including periods in R&D, development, production, business, and academia. An author and speaker on a range of topics related to the Value Visualization of IT, Mr. Harris is considered a thought leader in the software development industry.

He became president, CEO and majority owner of DCG Software Value in 2006 and previously held numerous senior executive positions in Fortune 500 companies, including: Fidelity National Information Services (NYSE: FIS), Sanchez Computer Associates (NASDAQ: SCAI) and MasterCard International (NASDAQ: MA).

Contact: mharris@SoftwareValue.com or 610-644-2856 x22