

Software Due Diligence: How to Evaluate Digital Assets Before an Acquisition

Digitalisation and business model innovation pose a serious threat to established corporations. But, they also present opportunities in M&A deals that benefit both the buy- and sell-side. Leveraging these opportunities, however, requires a thorough evaluation of the software and digital assets involved - something very few companies know how to do. In other words, they don't know how to execute software due diligence.

In this eBook, we discuss how data-driven software due diligence is a powerful tool to evaluate a company's digital assets, link software with investment theses in M&A deals, and facilitate the integration process, illustrated through actual cases.

The Link between Software Innovation and Successful Investments

“Software is eating the world”, wrote Marc Andreessen in a [2011 Wall Street Journal article](#). He was referring to the fact that software will transform entire industries from financial services and health care to the automotive industry.

If you are not already convinced, consider the role software played in enabling the world's largest taxi company to own no cars, the world's most valuable retailer to have no inventory, and the world's largest accommodation provider to own no real estate.



Alibaba, the most valuable retailer, **has no inventory**.



Uber, the world's largest taxi company, **owns no fleet**.



AirBnB, the largest accommodation provider, **owns no real estate whatsoever**.

Companies across all industries expect digitalisation to disrupt their businesses and to impact more than half their sales by 2020, a prediction which is proving accurate.

If the M&A deal you are working on considers future cash flows, it is very likely that your capacity to maintain, develop, and innovate software will have a direct impact on the deal's investment thesis.

Linking the investment thesis with software involves the careful consideration of which business models are supported by which software. Take software-enabled digital products such as HBO Now, digital channels such as LVMH's Le Bon Marche, and regular operations such as airline ticketing control as examples.

This link between software and the investment thesis should guide how teams, processes, and assets are evaluated.

For example, a new digital platform with low revenues and fast growth should have a higher focus on innovation speed than risk management, while the opposite may be true for a system sustaining high-value operations. Knowing what matters and why allows the acquirer to identify value creation opportunities and synergies with their own assets and capabilities.

A 2016 article on Harvard Business Review posits that companies that focus on what they are going to get from an acquisition are less likely to succeed than those that focus on what they have to give it. Knowing your strengths and weaknesses allows you to identify the synergies you can bring to the table, be it cheaper growth capital or better execution skills.

Case Study

Setting up the Acquisition of a Startup

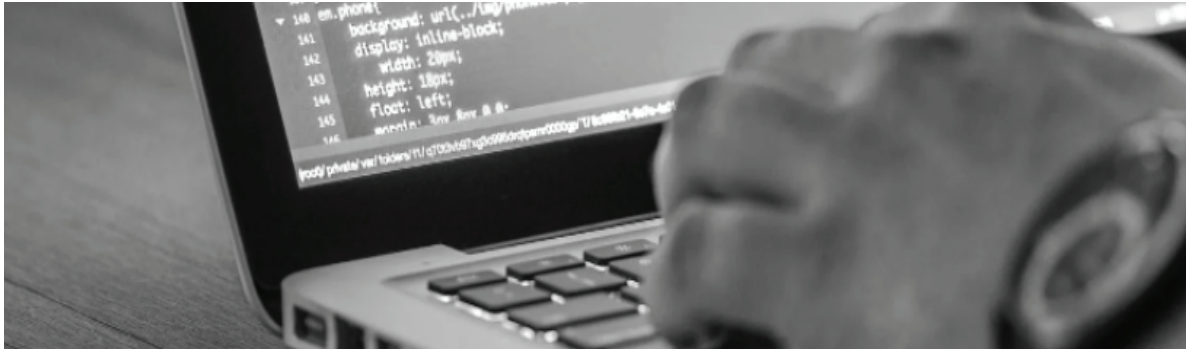
A client, the corporate buyer, was effective at generating business leads online, had experience managing reliable cloud infrastructure, and provided excellent customer support. However, they were constantly turning away small clients because their offering was too complex and expensive for them.

Understanding their strengths and weaknesses made it easier for them to identify an opportunity to acquire a startup with a disruptive business model that would allow them to capture a part of the market that both they and their competitors were under-serving.

Leveraging their internal strengths, they could help the startup gain customers at a lower cost, improve their product's performance in the cloud, and provide better customer support.

The key questions for the buyer in the acquisition were how to find a fair price and how to ensure the startup had the necessary prerequisites to support the growth projected in the investment plan. Avalia's E-analytics platform employing machine-learning enabled them to obtain new insights and improve the deal's outcome.

The startup, on the other hand, wanted to demonstrate the quality of their assets, but were not willing to share their source code with the buyer before a deal was closed. This required a quick on-site deployment, ensuring their data would never leave the premises while providing the desired transparency through summarised information based on actual data.



Ensuring a Successful Integration in Three Phases

Software due diligence in an M&A acquisition can also play an important role in ensuring a successful integration.

Phase 1: Facilitate the Due Diligence Process

During software due diligence, it is important that both the buyer and the target have an optimal process and secure what matters the most to them. This means providing the client and the startup with objective standards or criteria to support their negotiation.

Part of the due diligence process is to help both parties identify and agree on critical risks, as well as to minimise the time they spend in meetings and technical reviews by facilitating the debate and driving the discussion to the critical topics.

Phase 2: Harmonise Different Views

In another case, a CIO wanted to understand the impact of the Agile practices introduced in a fast-growing organisation, which was maturing and dealing with large clients that had strict traceability, security, and quality requirements.

Some of the early developers in the team felt the new processes were slowing them down, while the CIO felt they were accelerating their product delivery. By measuring elements of their innovation speed, such as the time required to deliver features and fix bugs, team size, composition, and activity levels, we could reconcile their views with data.

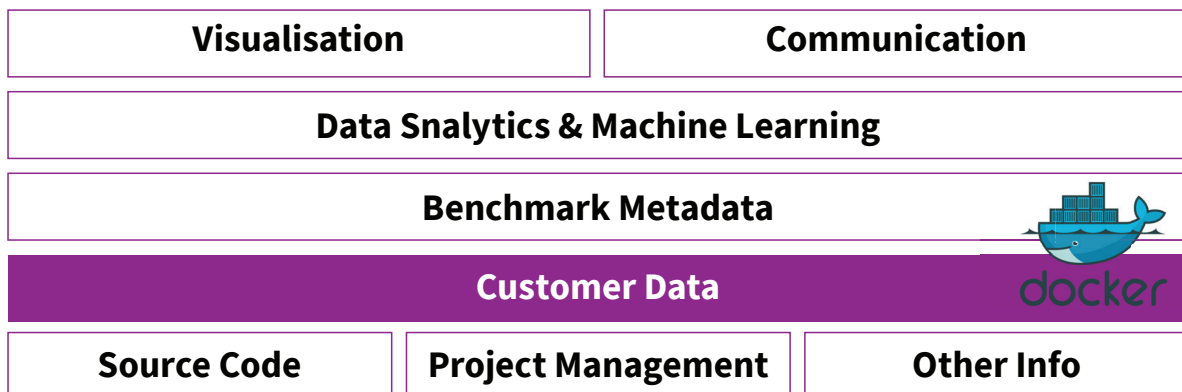
Phase 3: Measure Growth

In the same case, the development team created almost twice as many features per person before the introduction of these new processes than they were currently. However, quality metrics improved considerably with the number of bugs falling by a factor of 5. In addition, better processes provided more regular product releases, moving from once a year to once per quarter, which increased upselling opportunities along with it.

Visualising this data allowed the team to understand the tradeoffs made and how the new process better matched their client needs and revenue growth requirements.

But data alone does not tell the full story. Early on in the first meeting, upon seeing the project evolution, parallel releases, and changes in the team, valuable insights came to the forefront. The team developing the product had changed dramatically, and a less experienced team had recently taken over the reins. Still, the new team sustained the high quality and release pace, while the more experienced team moved on to create a new product.

As Bill Clinton once said, there is a big difference between the trend lines and the headlines. Extreme positive or negative results make the headlines, but the trends can differentiate between chronic and acute symptoms, structural changes and flukes. An M&A software due diligence is an opportunity to learn from the past and prepare for the future. Identifying key performance indicators, visualising their progress, and tracking their evolution provide the basis for a successful post-merger integration process. A trend is a series of benchmarks over time, and in a competitive market, benchmarking against other players can also provide valuable insights.



GitHub

Jira

Trello



slack



Digitalisation holds the key to a considerable amount of value in the future of most businesses. Avalia enables companies to evaluate their digital capabilities and assets as well as those of the companies they target for acquisition.

Dealmakers now have at their disposal a fast, cost-effective, and secure way to understand what has been considered unfathomable to many. Taking advantage of software due diligence in this way could prove the difference between failing and succeeding in the digital age.

Takeaway: 6 Tips to Improve M&A Deals in the Digital Age

- 1 **Start with why:** build a link between the investment thesis and the software supporting it;
- 2 **Know thyself:** identify your company's strengths and weaknesses before assessing others;
- 3 **Be data-driven:** ask for the target's data, seek anomalies, replace opinions with data;
- 4 **Trust, but verify:** trust the data, but verify the contextual stories to obtain valuable insights;
- 5 **Follow the trend lines:** visualise, track, and benchmark the progress of key indicators;
- 6 **Communicate securely:** b it is important to make the relevant due diligence communication available to all parties through a safe cloud platform.

Avalia Systems software due diligence enables companies to gain clarity, improve productivity, and reduce risks in software development.

The company's proprietary software analytics platform uses data from source code management, project management, and code analysis systems, as well as interviews and questionnaires to assess, benchmark, and improve software development teams, processes, and products.

Avalia combines technical and business expertise to make data-driven evaluations of digital capabilities and assets that link to the investment thesis and business strategy, ensuring the conditions are right to leverage opportunities in software innovation, create value, and close successful M&A acquisitions in the digital age.

To find out more, please contact info@avalia.systems.

About Avalia

Avalia Systems is a Swiss-based technology advisory firm specialising in independent, data-driven evaluations of software products, processes, and development teams. With experts in software engineering, business, and Agile methodology, Avalia helps tech leaders and investors achieve better business results with their tech investments.

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