Deep Analysis

Knoa Software

Founded 2003 | HQ New York, NY | 20 employees (approx.) | <$10M revenue (est.)

Knoa has run under the radar for a long time, but the surge of interest in process and task mining allows it to shine. Though the technology is not new, it is well proven and provides accurate and specific information to enable business improvement through evaluating employee use of business applications.

The Company

Knoa is an interesting company: unlike many of the firms and products we profile at Deep Analysis, it is far from new, having been founded in 2003 in New York City, where it remains headquartered. CEO Brian Berns has led the firm since 2014. Throughout that time, Knoa has focused on monitoring and understanding the user experience with enterprise applications. Over the years, Knoa has raised $25.1 million in funding; the most recent round, in 2016, was led by Vantage Capital. Knoa has long-established partnerships with SAP and Oracle, and we estimate that the company has revenue of less than $10 million with approximately 20 employees.

The Technology

Knoa provides a broad and accurate picture of how a company's employees actually use installed business applications (SAP, Oracle, Salesforce, etc.). The key words here are "actually use," as almost no complex business application is used as it is designed to be used, or for that matter, how management "thinks it is used." Knoa does this by installing/injecting a low-footprint monitoring agent into the end user's browser. On the surface, this is the same thing that task mining software does, but Knoa does not rely on logging keystroke activity or screen scraping (the core focus of most task mining software). As such, Knoa works pretty much out of the box as it is pre-configured, with no need for programming or scripting, and can be up and running almost immediately. Compared to other task mining solutions, Knoa's approach to collecting user analytics is more robust and scalable and produces higher-fidelity information.

Knoa calls its solution User Experience Management (UEM). Many tools are available to do this for customer experience (CX), such as Dynatrace, and there are tools to monitor the underlying infrastructure itself, such as

Splunk. However, very few tools are available to monitor the employee experience of critical business applications.

Beyond installing a low-footprint agent, how does Knoa work? The installed agent records every user interaction with the application user interface (UI), such as screen navigation, clicks on hyperlinks or buttons, interactions with forms, etc. By logging all these activities, along with the application responses (such as rendering time or error messages), the precise steps and order that a particular work activity took can be mapped. For instance, creating or paying a new invoice will always have defined processes for the user to follow. In reality, however, it is more likely that users over time will have at best created workarounds to speed that process up. Or similarly, poorly trained employees will hit multiple obstacles and error points to complete the same job.

The logged data collected by Knoa is then parsed and processed into pre-configured dashboards providing graphical and analytical data that a business analyst or supervisor can easily understand (see Figure 1). This gives them a complete picture of how work is undertaken on the system and, by default, the information they may need to retrain employees, fix or improve processes, or remove unnecessary obstacles and steps. Virtually every ERP or complex business application is customized and configured over time to meet a specific business's needs; no two are alike. How the application works out of the box will seldom be the same as how it works in reality. Using these dashboards, a supervisor can see common error points, workarounds, slow system response times, process bottlenecks, etc., as well as what screens are being accessed and why, how much time is spent there, and what workers are doing while there.

Some highly detailed dashboards are pre-configured into the Knoa product, providing

Knoa Dashboard Example
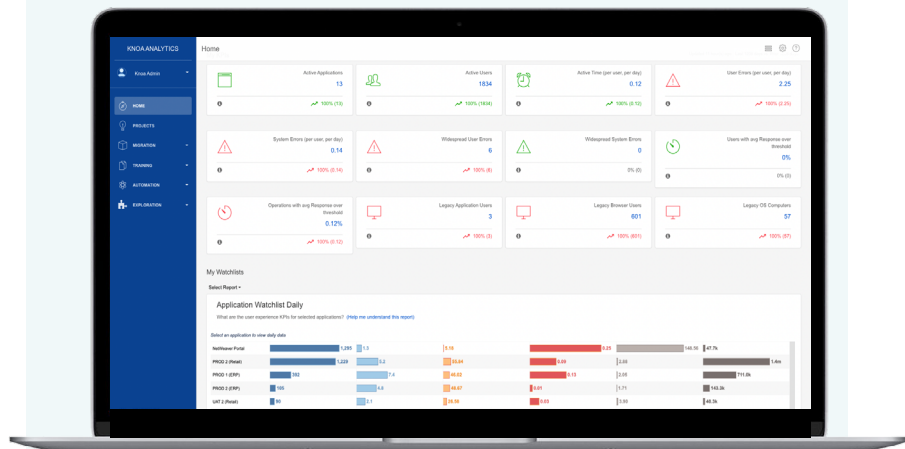
almost every aspect of aggregated data in context with user attributes. Analysis can be narrowed down to a site, process, or business department to understand adoption, rollout trends, or pain points. Thus, the system can be used in multiple scenarios as a management or diagnostic tool. The kicker here is that this is exactly the kind of monitoring functionality that frankly should come as standard with any ERP or complex business application, but as of today does not. This type of functionality and management system is particularly critical as ERP vendors push legacy on-premises customers to move to the cloud, knowing that such a migration provides an opportunity for business improvements to be made and existing problems exposed.

Knoa's goal is similar to task mining products that monitor a user's keystrokes or capture videos from the user's screen. The difference is that Knoa only captures work-relevant information (not clicks on the news or weather) via specific user interactions with the application UI. Secondly, it can capture

that information across the entire enterprise, rather than from a small, selected group of workers, due to its small footprint and scalable architecture. Knoa's ability to map process execution from a front-end perspective makes it a perfect complement to standard process mining and RPA products.

Our Opinion

Knoa has run under the radar for a long time, but the surge of interest in process and task mining allows it to shine. Though the technology is not new, it is well proven and provides accurate and specific information to enable business improvement. We see Knoa being of value in any significant migration or upgrade, as well as in ongoing performance and efficiency monitoring of your applications. In our analysis, at least, Knoa is analogous to Splunk system monitoring, but rather than focus on the underlying infrastructure it provides the same level of insight at the user level.

Advice to Buyers

If you are migrating a complex business application to the cloud or considering a significant upgrade, you should consider using Knoa. ERP applications in large organizations cost millions to maintain each year, yet few have a clue as to what they are and how they are being used. A system like Knoa can provide that insight along with a rapid return on your investment and can be used either to replace or to augment survey-based EX products such as Qualtrics.

SOAR Analysis

Strengths
➡ Long established, with deep industry expertise
➡ Provides a complete and highly scalable view of user activity, not just samples

Aspirations
➡ Become the industry standard for user experience management
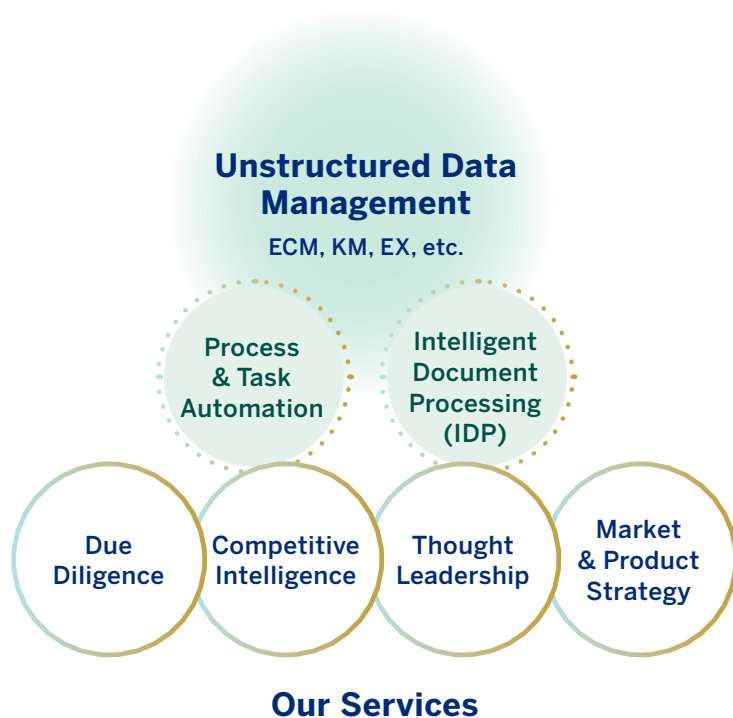➡ Grow substantially over the next five years as the shift to the cloud for legacy ERP continues

Opportunities
➡ Ride the wave of interest in process and task mining
➡ Expand beyond the SAP and Oracle relationships

Results
➡ 2.4 million worldwide enterprise licenses
➡ Longstanding partnerships with leading ERP vendors

About Deep Analysis

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Deep Analysis is an advisory firm that helps organizations understand and address the challenges of innovative and disruptive technologies in the enterprise software marketplace.

Its work is built on decades of experience in advising and consulting to global technology firms large and small, from SAP, Oracle, and HP to countless start-ups.

Led by Alan Pelz-Sharpe, the firm focuses on Information Management and the business application of Cloud, Artificial Intelligence, and Blockchain. Deep Analysis recently published the book "Practical Artificial Intelligence: An Enterprise Playbook," co-authored by Alan Pelz-Sharpe and Kashyap Kompella, outlining strategies for organizations to avoid pitfalls and successfully deploy AI.

Deep Analysis works with technology vendors to improve their understanding and provide actionable guidance on current and future market opportunities.

Yet, unlike traditional analyst firms, Deep Analysis takes a buyer-centric approach to its research and understands real-world buyer and market needs versus the "echo chamber" of the technology industry.