Process Mining
Dynamic Insights Research Program

Capturing and analyzing application usage to improve operational processes

RESEARCH PROSPECTUS

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Research Overview

Ventana Research has explored the market segment of Process Mining as part of its Analytics practice. Process Mining is defined as the analysis of application telemetry including log files, transaction data and other instrumentation to understand and improve operational processes.

Process Mining uses information gathered from enterprise software applications to understand and improve an organization's operational processes. Log data provides an abundance of information about what operations are occurring, the sequences involved in the process, how long the processes are taking and whether or not the process was completed successfully. As computing power has increased and storage costs have decreased, the economics of collecting and analyzing large amounts of log data have become much more attractive.

Process-mining platforms typically include:

- Pre-built log file collectors and application connectors to make it easier to access all relevant information sources. Regardless of how many applications are supported out of the box, it's likely that organizations will need to implement custom connectors as well, so the platform should include a toolkit for additional connectors.

- A framework for analyzing the processes that includes sophisticated artificial intelligence and machine learning capabilities to identify subtle relationships between steps in the process and across processes.

- A recommendation engine to help determine likely resolutions to the issues identified as well as track and analyze those resolutions to understand which were most effective.

- An automation framework for resolutions that includes connectors back to the underlying business applications to enable organizations to close the loop and minimize resources needed to implement the resolutions.

- The capability to report and visualize information about the processes and the resolutions.

This Dynamic Insights research examines how organizations are using Process Mining, and how they apply the data and learnings from those tools to real-world situations. It investigates whether the use cases that vendors promote map well to organizations' needs. It also examines the level of adoption and maturity that organizations have reached in their Process Mining deployments.

Research Background

Process-mining software has been around for at least a decade but is recently generating more interest these days. Process mining uses information gathered from enterprise software applications to understand and improve an organization's operational processes. Log data provides an abundance of information about what operations are occurring, the sequences

involved in the process, how long the processes are taking and whether or not the process was completed successfully. As computing power has increased and storage costs have decreased, the economics of collecting and analyzing large amounts of log data have become much more attractive.

Understanding and analyzing operational processes in such detail can provide significant benefits. If an organization can identify processes that are bogged down and improve them, it can reduce the resources required for those processes. Once the resolutions to these business process issues have been identified, the next step would be to explore options to automate the solution, further increasing efficiency. There are challenges to process mining the log data from various applications in an organization. Many organizations use custom applications which may not be accessed easily. It may be difficult to capture information from customized third-party applications as well. And organizations often use applications from a variety of vendors. Relating the information about processes that span multiple applications also presents challenges.

Research Focus

This Dynamics Insights research will identify, explore and quantify key aspects of the how organizations are using and planning to use process mining. These aspects include the mandate to deploy process mining within the organization; how effective it is and why; the challenges of implementation and adoption; and the role of people, processes, information and software in addressing those challenges. The research will investigate what types of organizations are interested in investing in improvements to process mining, why they are interested and, with respect to software and technology, who in the organization makes the purchase decisions, on what time frame and using what selection criteria. It will explore the value of more effective processes, and it will assess the maturity and performance of the processes, analytics, software and data environments in today's enterprise. The research will also identify key insights and best practices that will ensure success with process mining.

Research Objectives

Ventana Research's Process Mining Dynamic Insights research program will identify trends in the actual usage patterns associated with the toolset, and deliver targeted recommendations based on those trends to the individuals participating.

It is crafted to help buyers of Process Mining software understand how they can derive maximum value from their tools and view their organizations' progress in context.

Specifically, this research will:

- explore organizations investments in process mining
- investigate the objectives held by organizations prior to deployment
- determine the challenges they may have encountered
- and assess the responses to those challenges, and the outcomes of decisions made along the way.

Scope and Methodology

This Dynamic Insights research is led by David Menninger, SVP and Research Director for Ventana Research. Our objective is to have qualified research input from at least 150 companies with more than 100 employees or annual revenues of more than US$100 million at the levels of responsibility that are pertinent to this topic across IT and key business domains. The survey will be conducted in English.

The sample will be qualified through the Ventana Research community and research panel and the specific groups that best represent the focus on process mining across the levels of individuals in an organization. All qualified participants will receive a $50 gift card.

About Ventana Research

Ventana Research is the most authoritative and respected benchmark business technology research and advisory services firm. We provide insight and expert guidance on mainstream and disruptive technologies through a unique set of research-based offerings including benchmark research and technology evaluation assessments, education workshops and our research and advisory services, Ventana On-Demand. Our unparalleled understanding of the role of technology in optimizing business processes and performance and our best practices guidance are rooted in our rigorous research-based benchmarking of people, processes, information and technology across business and IT functions in every industry. This benchmark research plus our market coverage and in-depth knowledge of hundreds of technology providers means we can deliver education and expertise to our clients to increase the value they derive from technology investments while reducing time, cost and risk.

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