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Prioritizing Digital Innovation in Business

The pace of business today requires organizations to constantly examine how to make their people and processes more effective. One proven approach to improving business performance is to harness the insights and intelligence that analytics can provide to continuously assess, identify and address new opportunities and resolve issues and potential barriers. This is the essence of a foundation of digital innovation in business.

To respond effectively to changing market conditions, competitive pressures and newer business models and to meet customer expectations, business needs to be able to detect and act on changes rapidly. Doing so, as well as improving business processes, clearly requires modern analytics. New technologies enable quick, effective analysis, and digital transformation enables automation and innovations in analytics that can personalize actionable information for specific roles and responsibilities. Adapting the use of analytics to individual needs across the entire enterprise requires a thoughtful approach, one where business sets priorities so IT can help it realize full benefit from the portfolio of data and applications that are available today and those that will be available in the future.

But having this ability to harness the full power of digital transformation means investing in technology that will make it possible to determine the best path forward – to understand the organization’s potential and what preparation and readiness steps will be required for it to advance and compete better. Just the exercise of digital transformation alone is insufficient; investments in new digital innovations will garner the largest return for business.

Responding to such opportunity requires a process. It’s one that begins with a reexamination of all technology choices to clarify the extent to which they have helped the business move along the path to digital innovation and have ensured that it can truly operate in a modern digital fashion at an enterprise level. And it continues with establishing both a program and a team that represent roles and responsibilities across the organization. This path will prepare organizations to accurately assess where and how technology can be an instrument for the change and improvement that’s needed.
A Digital Foundation for Business

Creating the potential for business success requires an understanding of the entire enterprise and an emphasis on the utilization of data for analytics. It is critical that business and IT collaborate to prioritize an analytics-first strategy, endorsed by executive management, that can support and empower rapid and yet authoritative decision-making and action. Implementing change and improvement at the rapid pace needed requires leadership and committed team participants who see clearly the path to generating insights and intelligence from analytics. Organizations must determine where bottlenecks exist to this business intelligence imperative and work to remove them.

Being analytics-driven requires that an organization have technology platforms that are able to access and integrate efficiently with data from existing on-premises and cloud-computing applications to support business and IT roles, including analysts, business users and developers. To be useful in this environment, every platform must be able to operate across the enterprise, support applying analytics to data at any level and scale as needed to generate metrics or derivative data. An organization often encounters challenges when it splits its efforts across a variety of tools that do not have the ability to share metrics and analytics. At the very least, organizations should ensure a common data and enterprise platform for operating across the cloud.

Successfully navigating a digital transformation and embracing analytics requires a program and process to manage change effectively across work and resources. Organizations should focus on rapid, iterative improvements rather than long project cycles and should structure the process accordingly, so it is easier to evaluate progress and, equally important, demonstrate success.

Investments must do more than simply replace the last generation of analytics. They should be smart, carefully considered and appropriate. Organizations should prioritize investments that can meet broad data and analytics needs across roles and business processes. The needs of the enterprise inevitably vary according to roles; this means that a technology platform should be able to respond and adapt to the needs and skills of the individual and provide an accessible yet effective user experience. Organizations should build a foundation that unifies analytics with line-of-business constituents, providing the sophistication each needs while ensuring that the analytics will be accessible. Finally, they should establish a
technological foundation, from mobile tools to intelligent notifications, to ensure timely awareness of key current or potential variances.

Maximize the Potential from Analytics

Analytics’ value hinges on how the derivatives from them are used by business to optimize operations and improve outcomes. This means that organizations must design and assemble applications to address the array of specific business needs within and across departments. Moreover, improving business processes requires continuous analysis of activities and transactions so resulting analytic insights can be monitored and acted upon.

The internet of things (IoT) makes it clear that an expansive portfolio of devices and technologies can now increase the efficiency of operations. IoT technology generates data that can improve responsiveness; our Internet of Things benchmark research finds that almost half (43%) of organizations use analytics and BI tools to derive value from IoT data.

Analytics should be accessible at any time. They should be embedded in all locations where users are likely to want to access them, in applications and portals that are already in operation. In our research, almost three-quarters (72%) of organizations acknowledged the importance of embedded analytics. Analytics should of course be accessible on mobile devices such as smartphones and tablets so that individuals can access them or receive notifications at any time. In doing this, organizations should ensure that information is presented in a simple, easily understandable way.

Usability is an essential criterion for analytics tools; almost two-thirds (63%) of organizations indicated it is of top importance. For example, geographic views can show where locations and analytics are correlated, which can help speed time-to-insight. Also, individuals should be notified of changes through contextual alerts that guide them to take action rapidly and then shows them progress.

The bottom line is that analytics must be engaging, understandable and actionable for anyone in business. It should present not only visualization of data but guidance so that individuals can easily conduct situational reviews and respond. Furthermore, it is crucial that analytics tools enable collaboration so that actions
can be guided effectively using all available relevant information. More than two-thirds of organizations are using collaboration with analytics, and more than half (52%) of organizations are planning to use them both together.

A number of recent advancements can help make analytics more meaningful for business. As mentioned above, geographic context and the location of customers can sharpen analytics. The generation and processing of natural language can dramatically improve the access and presentation of analytics and data. Also, analytics and presentations on the information they generate can be grouped together into portfolios or dossiers to focus attention on topics that matter the most to the individual and the business.

**Digital Innovations for Analytics**

Innovating in analytics involves applying technologies that make analytics available at any time and anywhere, through cloud computing, software as a service (SaaS), mobile technologies and on-premises systems. Whatever the delivery method, bringing analytics to everyone in the organization requires a common platform to connect a variety of tools and applications to any cloud-computing platform environment. Organizations should be able to spin up and deploy analytics access via private and public cloud computing environments and they should be accessible from platform-as-a-service (PaaS). More than two-thirds (68%) of organizations said embracing this approach is important for analytics.

Furthermore, mobile technology should allow users to access analytics on smartphones and tablets via native applications; organizations have rapidly adopted this technology with almost two-thirds (65%) supporting them today. Our research makes it clear that mobile technology has significantly improved access to and use of data and analytics in the cloud in more than half (54%) of organizations.

Data that is generated in cloud-based business applications is the top data source in almost two-thirds (61%) of organizations. Therefore, it is critical that data is accessed, prepared and integrated across internet and enterprise systems easily and without latency. Also, analytics platforms must be able to scale and perform no matter the volume of data or its location.
Of course, when analytics platforms are deployed across the enterprise, identity and security become critical elements. Organizations should embrace information security through identity management to ensure secure access to data analytics and protect critical information assets. Security is the top technology concern for managing analytics and data-related initiatives in more than half (57%) of organizations. In addition, identity technology enables a new level of personalization to provide relevant analytics in-context and collaboratively. Furthermore, associating identity with location enables geospatial context and thus greater contextual analysis of business and system information.

Artificial intelligence (AI) and machine learning represent a new generation of computational capabilities that produces more intelligence from analytics. Together, predictive analytics and machine learning can dynamically generate more contextual insights. The use of predictive analytics technology significantly impacts results in almost one-third (31%) of organizations and machine learning can help organizations process interactions in real time through text and voice chatbots to provide insights more immediately. These capabilities can support the needs of more than a million technology professionals who have a title or responsibility related to AI and machine learning.

However, applying data science requires preparation and governance to ensure the quality of the information for analytics. Our Data Preparation benchmark research finds that almost half of organizations view connecting to data sources (49%) and preparing data for analysis (45%) as the most time-consuming tasks in the analytics process.

### Embrace Analytics for Digital Business

Innovation in business requires investments in and prioritization of digital technologies that advance performance potential. To operate as efficiently as possible across industries and the value chain of consumers, retailers, distributors, manufacturers and suppliers, organizations must enable real-time sharing of analytics-generated metrics that can be used to optimize business processes and performance.

Digital transformation is impossible without investment in analytics that can operate at the fast pace of business today. We urge that organizations examine where digital technology innovation can advance their business and look to
compounded improvements where possible. Almost two-thirds (63%) of organizations said they are planning to change the way they assess and select data and analytics technology in the future.

The assessment should examine the organization’s priorities to ensure that innovations in analytics are part of every digital business investment. To compete effectively in the market, an organization must be at the cutting edge of analytics. More than half (57%) of organizations reported achieving a competitive advantage as the top benefit of using predictive analytics.

In summary, it is crucial as part of this process to support the full potential of the business and the next generation of workers; a positive employee experience mitigates in favor of positive employee contributions to operational performance. Optimize business processes and examine further automation potential through analytics-based assessments. Adopt and use technology that will work well across your entire team.

Take a close look at technologies that have been proven to operate across the enterprise, and interview organizations that have adopted platforms to ensure they can operate reliably in your organization. Finally, discover best practices by examining how other organizations have advanced their efforts by prioritizing methods for improvement.
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.

Ventana Research provides the most comprehensive analyst and research coverage in the industry; business and IT professionals worldwide are members of our community and benefit from Ventana Research’s insights, as do highly regarded media and association partners around the globe. Our views and analyses are distributed daily through blogs and social media channels including Twitter, Facebook and LinkedIn.

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