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Intelligent ERP: Delivering Critical Business Capabilities That Current Systems Lack

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Written by: Mickey North Rizza, Program Vice President, Enterprise Applications and Digital Commerce, and Shari Lava, Research Director, Worldwide Small and Medium Business

Growing companies have a unique dilemma. Those that sell products or services abroad encounter all the same challenges related to global complexity (i.e., currency concerns, localization issues, shifting customs, transfers of goods and services, and tax regulations) that larger enterprises wrestle with. However, they are often forced to address these challenges with fewer resources than their bigger competitors while also navigating the organizational complexity that comes with growth. This dilemma drives growing companies toward capabilities that are critical to their business needs.

Recent IDC research shows that these companies need to rethink their approach to growth. Some 41% of respondents cited the need to "grow revenue" as their top business priority, according to IDC's *Worldwide Small and Medium Business Survey*, October 2020. However, 35.4% identified "legacy applications and custom code" as one of their top 3 technology barriers to meeting business goals. For growing companies, the right approach to powering the business involves quickly implementing modern and intelligent technology. To achieve efficiency and resiliency, these companies must harness their own data by using innovative tools and processes to manage massive data sets, surface insights, and drive automation. Intelligent ERP is a modern ERP system that takes a data- and insight-driven approach to managing the business rather than acting as a repository of transactional data.

AT A GLANCE

KEY STATS

» 72.3% of growing businesses either have deployed or plan to use artificial intelligence (AI) available within business applications to automate their processes.

» 21.5% of growing businesses identified "moving data out of spreadsheets" as a top 5 technical priority.

KEY TAKEAWAYS

Intelligent ERP is a system infused with intelligence and insights to glean information from the data repository to provide actionable insights for employees. It automates repetitive, low-value work so that employees can focus on more meaningful activities such as helping the business grow.

Intelligent ERP systems provide more actionable insights and predictive indicators to help businesses navigate the dynamics of growth more easily. Intelligent ERP systems use assistive and conversational artificial intelligence (AI), intelligent robotic process automation, situation handling, machine learning, and big data and predictive analytics to forecast, track, learn about, route, analyze, predict, report on, and manage resources and business processes. This approach makes it easier to get a full picture of the company in real time that is more accurate and up to date. Intelligent ERP applications feature an assistive and conversational user experience (UX) that enables an organization to move from legacy ERP rules-based workflows to a combination of rules and self-learning processes, bringing more analysis to employees so they can make actionable decisions quickly. In addition, by leveraging data with innovative technologies, intelligent ERP systems can also act as a trusted resource of real-time business information for employees.

The Case Against Legacy ERP

Legacy ERP refers to a class of systems that have grown from manual procedures to semi-automated processes for analyzing business operations, including financials, manufacturing, and supply chain. Legacy systems utilize rules-based business processes to examine operations activity and to flag future challenges. Information is manually analyzed using data that is brought forward in a periodic or batch fashion, which means the legacy ERP system lacks the benefit of real-time information. The inherent latency makes it difficult for organizations to fine-tune performance in the moment because the data is historical.
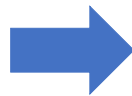
Legacy ERP Versus Intelligent ERP

Growing companies with an existing ERP system might be tempted to think that simple changes or upgrades are enough to unlock business benefits. The truth is that simple updates will not move a legacy system to an intelligent system. Figure 1 highlights the differences between legacy ERP and intelligent ERP.

FIGURE 1: *The Shift from Legacy ERP to Intelligent ERP*

Legacy ERP Characteristics

- Reactive
- Manual centric, semi-automated
- Periodic or batch updated
- Historical rearview mirror of a monolith of data
- Internally focused with little consideration of external data — inability to provide situational context

Intelligent ERP Characteristics

- Proactive
- Automated and self-healing
- Real time
- Insights, situational intelligence
- Synthesizes and analyzes many data sources — both internal and external — for a real-time view

Source: IDC, 2021

It is important to recognize that legacy ERP systems were often selected in a "best of breed" approach similar to that used for many line-of-business (LOB) applications requiring additional integrations. This approach left the data architecture of legacy ERP systems fragile and prone to breaking even with minor changes or security patches. In contrast, cloud-based intelligent ERP platforms are built to provide a more all-in-one approach, meaning fewer disparate processes to manage and more robust data available in one place.

With the explosion in the volume, variety, and velocity of data, the traditional rules-based legacy ERP system is no longer sufficient to support the need for faster and more accurate decisions. Intelligent ERP balances time-tested rules with automated and self-learning technologies to help organizations analyze and react to big data generated by many sources, including Internet of Things (IoT) appliances and the ERP system itself. This facility helps businesses move from manual and reactive decision making to automation and proactive decision making.

The New Requirements of Growing Businesses

All businesses experience ebbs and flows in size, products, and services. Growing businesses have developed a core set of ERP software requirements to help them compete more effectively, grow revenue, and increase agility and resilience. These requirements include:

» **More focus on vertical markets.** Many growing companies tend to specialize in serving one customer group, often coalescing around a vertical. They need ERP applications with a deep functionality related to their chosen vertical market to help them compete more effectively. While certain business processes are common among all industries, business processes and reporting requirements differ greatly in sectors such as higher education, healthcare/pharma, government, manufacturing, nonprofit, or services.

» **Greater emphasis on ecosystem.** Growing businesses often use a partnering strategy to drive revenue growth. This strategy often means more complicated transactions and partner interactions, placing greater emphasis on the financial, project, and industry-unique workflows. A partnering strategy also places more emphasis on the software's capability to connect to other point solutions (both internal and external), a top priority for growing businesses with an established and entrenched set of applications. As a result, it is essential for growing ERP vendors to provide robust APIs to streamline the data flow between systems.

» **Better UX.** User experience has become a major point of differentiation for growing businesses. Simpler and easy-to-use user interfaces (UIs), more configuration/flexibility, mobile functionality, increased automation, and even implementation processes will factor into the overall user experience with the software.

» **Preference for a trusted brand.** IDC's most recent *SaaSPath Survey* of over 2,000 respondents found that being a trusted brand is the most important vendor attribute to organizations when purchasing ERP applications. Every ERP technology vendor has different products, functionality, and deployment models. While some providers are more innovative, others are focused on either a subset of industries or services functionality versus manufacturing and supply chain specialties.

» **Superior features and functionality.** The *SaaSPath Survey* also revealed superior features and functionality as the second most important attribute when evaluating ERP technology vendors. Organizations need to know a solution has exceptional business processes with intelligence embedded into them to reduce lower-level tasks. Predictive analytics aids the organization as it models business outcomes so the best action can be selected. Organizations also want to know if IoT, drones, robotics, augmented reality/virtual reality (AR/VR), and other innovative aspects can be integrated quickly and easily into their solution.

» **More agility through collaboration.** Agility is key for growing companies as it is often one of their most reliable advantages over larger competitors. Much of that agility comes from collaboration capabilities. Companies are utilizing real-time collaboration aspects of modern cloud-based ERP software solutions to share access to critical sales and operational data with partners. With this technology-driven collaboration in place, businesses can detect sea changes in the market more quickly and respond more effectively and dynamically, essential for a growing company that wants to build a resilient organization.

» **Demand for greater process controls.** In contrast to small organizations, growing businesses have more dedicated job roles and formal departments. As a result, many are looking for a full suite of process workflows and controls. The ability to tailor the employee's UI to show only necessary information is critically important for growing companies.

Benefits of Intelligent ERP

For growing organizations, intelligent ERP systems act as the digital core of technology resources, guiding employees with actionable information to help steer the business in the right direction. Benefits of these systems include:

» **Leveraging massive data sets for more informed decisions.** The intelligent ERP system is the digital core that ties the data sets to analytics, turning the data into actionable insight.

» **Connecting across customers, suppliers, and employees.** Such a system can connect resources and leverage all data points.

» **Providing resources with agility.** Intelligent ERP enables leaders and employees to think, understand, and move swiftly with intelligent decision making, uncovering insights rapidly.

» **Scaling as needed.** Systems can run in the cloud, enabling them to grow and contract based on the business requirements.

» **Allowing the organization to make the right decisions.** Intelligent ERP systems use real-time data and intelligence, enabling organizations to make better and more informed business decisions immediately.

» **Enabling up-to-date forecasting to navigate demand cycle shocks.** Intelligent ERP can better manage supply needs in real time so that organizations can make the right decisions to pivot when needed.

Drivers for Intelligent ERP

Driven by the need to become resilient, 65% of organizations will invest in highly configurable AI-infused ERP applications by 2023 to achieve greater autonomy in business operations, according to IDC. It is important to note that there are many trends in intelligent ERP technology that organizations should consider in the selection process, including:

» **Evolving business models.** Subscription-based business models are set to grow rapidly in the coming years in nearly every sector. However, the greatest challenge for ERP applications comes from the rapid rise of mixed/hybrid business models (i.e., traditional and subscription based). More companies are operating mixed business models that offer both products and services in a traditional model as well as a recurring model.

» **Changing deployment models.** ERP application vendors are investing resources to build out the business functionality of their cloud software. This includes investment in infrastructure functionalities such as databases, service-level agreements (SLAs), and microservices. ERP application vendors are also working to support their sales teams and implementation partners with customer evaluation tools to facilitate the transition to the cloud.

» **Converging workflows.** The traditionally siloed nature of operational functions such as procurement, inventory, manufacturing, customer project management, and various areas of finance is rapidly changing. The walls are breaking down, which is necessary for more coordination, collaboration, and communication among these and other functions. Intelligent ERP users have a more continuous and holistic view of the company's performance so that better strategic decisions can be made.

» **Supporting digital business.** As organizations move into the digital economy and focus on transformation initiatives, they are turning to advanced technologies such as intelligent ERP to enable their evolution. Intelligent ERP supports digital transformation with new use cases leveraging technologies such as big data and analytics and machine learning (ML) to provide more actionable insights across a broader workstream.

» **Competing with larger businesses and smaller disruptors.** Growing organizations find they are competing against businesses of all sizes in many geographies for market share, so expanding with the right intelligent ERP system is a foundational requirement.

» **Planning for industry-specific solutions.** As organizations evolve and compete, they require an intelligent ERP system with industry nuances. Having technology that caters to those nuances immediately enhances the system's value for the organization.

» **Handling supply chain disruptions.** Growing businesses must be able to quickly gain insights and solve supply chain issues.

» **Pursuing platform adoption, not a best-of-breed solution.** The new platforms ease integration issues and ensure data is shared securely and appropriately with the right people.

» **Embracing socially responsible business to lead in the digital economy.** As businesses evolve, they are increasingly focused on ensuring products and services are as socially responsible as possible.

Considering SAP

SAP S/4HANA Cloud is the company's intelligent ERP system. It is intended for organizations that want to grow over time as well as for enterprise organizations that face complex industry requirements. SAP's intelligent ERP system allows organizations to be more productive and efficient by streamlining and automating processes. Users can gain deeper actionable insights to connect and access to data streams in real time so the business can act quickly. SAP S/4HANA Cloud also provides organizations with more visibility to ensure policy and regulatory compliance, enable more accurate planning, and reduce fraud. SAP's intelligent ERP helps connect, analyze, and leverage data across the business, continuing to bring value as the organization grows.

Challenges

» There continues to be angst in the market that today's ERP projects are dealing with the same kind of challenges faced by ERP projects in previous decades, and it can be difficult for growing businesses to see beyond that angst.

» Technology teams at growing companies are stretched to deliver the new technologies necessary to optimize the business for the next normal. Many that are trying to do this transformation themselves may not achieve the desired results.

» There is a persistent belief among growing companies that SAP does not have solutions that fit their needs. Providing customers with an understanding of the on-ramp and where a business can go with SAP at its digital core will help overcome this concern.

» SAP has multiple applications that address the needs of growing businesses, including SAP Business ByDesign and SAP S/4HANA Cloud. With multiple applications, there is a risk of confusion among potential end users as to which system would best fit their needs. SAP is addressing this issue through its Intelligent Enterprise framework, which provides guidance on how to use the applications depending upon different configurations and needs.

Growing Businesses Use Intelligent ERP

Intelligent ERP is a modern advancement as well as replacement for legacy ERP systems. It can provide a new level of business agility that goes beyond the traditional ERP domains of supply chain, inventory management, and financials, extending well into the business to bring in external data to create more valued assessments. Intelligent ERP is a next-generation business system that provides a more integrated experience to enable employees to provide a better customer experience at each stage of the customer journey.

Intelligent ERP is a huge differentiator for the growing business. Real-time insights, aided by innovation, create a strategic asset enabling the business to navigate dynamically.

About the Analysts

Mickey North Rizza, Program Vice President, Enterprise Applications and Digital Commerce

Mickey North Rizza is program vice president for IDC's Enterprise Applications and Digital Commerce research practice. She leads a team of analysts responsible for IDC's coverage of the next generation of enterprise applications including ERP, financial applications, procurement, supply chain automation, project and portfolio management, enterprise asset management, services resource planning (SRP) and related project-based solutions software, and the digital commerce business network.

Shari Lava, Research Director, Worldwide Small and Medium Business

Shari Lava is Research Director, Worldwide Small and Medium Business (SMB) research program within the digital transformation space. Ms. Lava's core research coverage includes identifying and supporting the unique, evolving needs of very small, small, and medium business technology buyers.

MESSAGE FROM THE SPONSOR

Businesses that learn to systematically transform, reinvent and seize new opportunity require new technologies, greater ability to connect to business networks, drive data driven insights and manage resources well. Companies using intelligent enterprise technology and tools will be faster, more agile, creative and have an ability to build deep sustaining relationships with customers, vendors, employees.

Intelligent ERP solutions from SAP helps customers across industries with industry best practices built on 50 years of experience become best run businesses, enabling them to grow and align resources more efficiently. Unlocking the power of artificial intelligence helps employees make better, more informed decisions, drive out waste, grow healthy financial reserves, develop business resiliency with best practices with rapid time-to-value.

We would like to invite you to learn more about SAP S/4HANA Cloud and hear from our customers at
https://www.sap.com/products/s4hana-erp.html

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