Deliverydevs

The Future of Business Management with ERPNext and Odoo

A White Paper by the experts themselves

Executive Summary

The global business environment is rapidly shifting towards digital-first, data-driven operations. Modern Enterprise Resource Planning (ERP) systems are now essential for organizations aiming to streamline processes, enhance efficiency, and scale their business. ERP integrates a business's core functions into a single, unified platform for faster decision-making and improved collaboration among different departments within the company. By standardizing workflows, automating routine tasks, and allowing data access, ERP systems help organizations reduce operational costs, enhance productivity, strengthen compliance, and scale effortlessly.

ERPNext and Odoo, two leading open-source ERP solutions, offer SMEs and enterprises alike with affordable, customizable, and scalable alternatives to traditional proprietary systems like SAP, Oracle, and Microsoft Dynamics.
Odoo offers a highly modular, app-driven architecture and an extensive marketplace, with over 15 million users and 16,000+ partners worldwide.[1]
ERPNext, built on the Frappe Framework, provides a comprehensive suite of modules and a streamlined user experience adopted by more than 5,000 companies globally.[2]

To maximize the benefits, organizations need an implementation partner that combines technical expertise with transparency, industry knowledge, and a value-driven approach. Deliverydevs provides enterprise-grade ERPNext and Odoo implementations backed by cross-industry experience, agile methodologies, and a strong focus on performance-based ROI. The company supports clients across the entire ERP lifecycle - from legacy migration and customization to integration, staff augmentation, training, and ongoing system optimization.

This paper shares how these platforms drive operational excellence and digital transformation, and how you can select the one best suited to your business needs.

Introduction

Reports show that a lack of centralization and integration (29%) and inconsistency and altered data (20%) are major obstacles in managing companies internally, leading to increased cost and lack of competitiveness.[3]

Thus, legacy systems with obsolete architecture and high maintenance costs may not be the best choice for businesses today. They often restrict growth, requiring modular and flexible ERP deployments designed for evolving business needs.[4]
In a world where everything is digitalized, modern ERP systems serve as the backbone of digital transformation, integrating core business processes into a single, automated ecosystem. This enables real-time insights, data-driven decision-making, and operational efficiency for businesses of all sizes.

Modern Enterprise Resource Planning (ERP) systems not only promote efficient teamwork but also help you make decisions faster by updating inventory, sales, finances, production status, and operational metrics in one place. Businesses across all industries can benefit from ERP to streamline processes and share data in a unified manner.

Common Business Challenges Across Industries

Despite industry differences, organizations commonly face the following challenges:

1. Fragmented Systems

Medium to large sized businesses often find it complicated to manage multiple functions within the organizations and usually use separate software for finance, operations, HR, and reporting. It can be harder to monitor details across each platform effectively as there is no single unified source of truth.

2.Manual & Inefficient Processes

While many organizations have moved to digitalization of the data and processes, some still rely on paper-based approvals and manually updated spreadsheets, leading to high operational overhead.

3. Limited Real-Time Visibility

Manual data keeping and updating can be slow and inefficient, resulting in inaccuracies and delayed reporting. This eventually makes it challenging to act proactively and leads to reactive decision-making.

4. Weak Controls & Compliance Risks

When managing data the traditional and outdated way, the organization may not have streamlined tracking. As a result, internal reviews and audits become time-consuming and less reliable. In addition, manual and fragmented workflows lead to inconsistent approval processes, increasing the risk of unauthorized changes, overlooked reviews, and delayed decisions.

5. Scalability Constraints

Companies that do not upgrade and rely on non-automated processes end up with systems unable to support growth. As the requirements of one system expand, you will need to change and update others to ensure smooth running, which can be costly in the long run.

An ERP system acts as a strategic enabler to overcome these challenges by centralizing data, standardizing workflows, and introducing automated controls across the organization. It provides real-time visibility, consistent approval processes, and reliable audit trails, helping organizations strengthen governance, reduce compliance risks, and meet regulatory requirements more effectively.

The ERP Landscape Today

The popularity of ERP

→ The global software ERP industry is expected to reach a market volume of US$65.74bn by 2030 at a growth rate of 3.30%.[5]
→ According to Fortune Business Insights, cloud ERP is projected to reach $181.04 billion by 2032.[6]
→ The popularity of ERP is rapidly growing in the Asia-Pacific region and is expected to expand at the fastest rate by 2032.[7]

Key challenges businesses face with traditional ERP systems

→ Traditional ERP systems take longer to implement, require frequent maintenance, and come with high upfront licensing fees, making them expensive for many organizations.[8]
→ ERP systems can be rigid and lack customization options, or personalization has high costs, making it hard to upgrade features to meet your business's needs.[9]
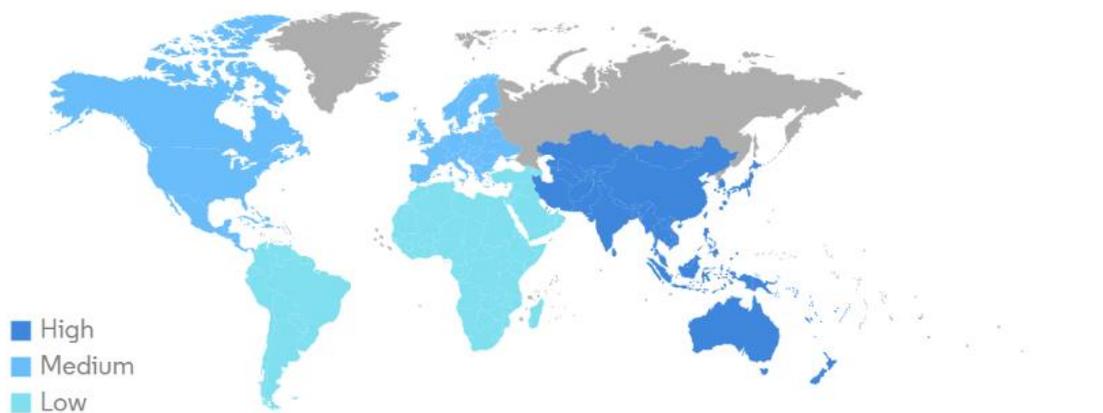
Rise of open-source ERP solutions

→ The Open-Source ERP Market size is expected to reach USD 4.60 billion by 2030, at a CAGR of 10.05%.[10]

→ Cloud-enabled platforms are becoming a preferred choice among small and mid-sized businesses that previously relied on traditional data management software.[11]

→ Cloud-based open-source ERP solutions are comparatively more economical and benefit SMEs and large enterprise organizations.[12]

Global Open Source ERP Market - Growth by Region (2022-2027)

- High
- Medium
- Low

Source: Mordor Intelligence

ERPNext and Odoo: The Open-Source Revolution

Open-source ERP has emerged as the perfect solution for companies that want to centralize their systems and improve collaboration between departments for quicker actions without customization restrictions. Modern ERP systems, such as Odoo, employ AI that helps businesses through predictive analysis and demand forecasting to manage inventory better and avoid overproduction.[13] At the same time, business development, production, sales, and finance teams can collaborate effortlessly, saving the company's costs and time.

Odoo and ERPNext are open-source Enterprise Resource Planning (ERP) platforms that offer flexibility and scalability by unifying core business functions, such as manufacturing, inventory, sales, accounting, human resources, and customer relationship management into one system. Odoo is a modular ERP platform, whereas ERPNext is built on the Frappe framework. They are two of the most popular and widely adopted ERP systems by businesses of all sizes globally. They allow extensive customization options to meet your company's unique needs.

ERPNext

ERPNext is a comprehensive ERP solution that includes accounts, sales, invoicing, procurement, stock, projects, manufacturing, HR, payroll, POS, with an option to alter modules as per specific business needs. It offers everything businesses need to operate and scale and can be customized to fit your organization's unique needs with its low-code, no-code builder. ERPNext is a popular Enterprise Resource Planning software among SMEs, healthcare, education, and manufacturing industries. It is free to use and is available as a self-hosted software and as a SaaS offering; you can host it on Frappe Cloud simply.[14]

- Developed by Rushabh Mehta in 2008.[15]
- Built on the Frappe Framework, a low-code platform.
- Vision: To build great products and services, empower and educate.[16]

ERPNext by Frappe is being used by 5,000 companies worldwide because of its ease of integration and use. Frappe has also assisted over 1,000 companies in implementing ERPNext effectively for enterprises seeking a flexible ERP solution.

Odoo

Odoo offers an all-in-one solution for multiple apps to manage expenses, shop floor, Point of Sales, front desk, inventory, kiosk, IoT and much more. With Odoo, you can automate actions and design web hooks, custom screens, and custom reports. It is actively maintained by developers to offer innovative applications to meet changing customer needs.

- Founded in 2005 in Belgium by Fabien Pinckaers[17]
- Originally TinyERP → OpenERP → Odoo (2014)[17]
- Vision: To transform companies, empower employees[18]

According to Odoo, the platform serves 15 million users globally and maintains a network of over 16,000 partners, reflecting its extensive market penetration. Odoo's popularity is attributed to its ability to streamline and perform tasks much faster. For example, it can perform VAT closing in 3 hours, which takes 6 hours if done manually.

Open-source ERP Vs. Proprietary ERP

Software such as NetSuite, SAP, and Oracle ERP Cloud are proprietary ERP systems owned and controlled by private companies. Their source code is closed, and you must purchase a license or subscription to integrate them. On the other hand, open-source ERP is open and editable, making it more personalizable according to your needs. Here's why open-source ERP is better than proprietary

ERP Today:

Simpler Customization: Legacy ERP solutions can be challenging to implement and customize and often require vendor or certified partner involvement for customizations and updates. Open-source platforms allow direct code access or partner-led customization, which reduces vendor lock-in and provides greater control over upgrade paths and custom features. Open-source systems offer a technical freedom that most legacy platforms do not.[19]

Modularity: Compared to older systems, Odoo and ERPNext offer modular app architectures, enabling businesses to scale over time.[20]
They can start with a minimal set of modules and add others like Sales, HR, CRM, etc., gradually. Besides allowing you to understand and run the system efficiently, it also makes implementation faster and reduces upfront cost.

Cost-effectiveness: Studies show that legacy ERP platforms generally have higher licensing and implementation costs, making it harder for small businesses to implement ERP. Open-source ERP platforms offer reduced/No upfront licensing fees and ongoing maintenance while allowing deployment in phases as needed.[21]

Extensive Partner Networks: Odoo's large partner network provides numerous prebuilt integrations and industry templates, whereas ERPNext's certified partners and the Frappe ecosystem offer a growing partner model, in contrast with the proprietary ERP ecosystems.

Community-first: Open-source software, such as ERPNext and Odoo, are community-first platforms that reduce barriers for customization and experimentation, compared to the high cost of customizations in proprietary ERP.[22]

Business Value Drivers of ERPNext and Odoo

ERPNext and Odoo have become a preferred choice among many organizations because of their ease of use, advanced technology, and other business value drivers, including:

Cost efficiency: Subscription vs. proprietary license models

Modern systems like ERPNext and Odoo provide a different and more affordable cost structure compared to proprietary ERPs, such as SAP or Oracle. Legacy systems often have higher costs because of high upfront licensing fees and costly hardware infrastructure. However, modern systems reduce the total cost of ownership significantly, making ERP software suitable for SMEs with limited IT budgets. ERPNext has a 100% open-source version, which is free to use and can be self-hosted for a one-time or ongoing cost for the business's own infrastructure. Odoo offer subscription-based models, along with scalable cloud hosting, enabling businesses to pay for the modules they need and eliminate the capital expense.

Customization and scalability

The ability to choose from various modules per need makes advanced ERP platforms more customizable and scalable. Supported by modular architecture and flexible frameworks, these systems are designed with an understanding of unique business needs. Businesses can begin ERP implementation by integrating a few modules essential for organizational functioning and workflows and incorporate more as the needs increase. Users can easily modify forms, workflows, reports, and dashboards without modifying core source code. This scalability makes them ideal for startups, SMEs, and fast-growing enterprises alike.

Cloud-native & mobile ready: Anytime, anywhere access

Odoo and ERPNext function seamlessly in cloud-based environments, offering real-time access to operational data, anywhere, anytime, from any device. Cloud hosting ensures automatic updates, improved performance, and scalability, enabling organizations to support hybrid and remote teams effortlessly. Their native mobile apps also support essential workflows such as attendance tracking, sales orders, inventory updates, and project management, enabling a distributed workforce to stay connected.

Integration capabilities: APIs, 3rd party apps, legacy modernization

Modern businesses rely on a broad ecosystem of applications, including CRM platforms, e-commerce, logistics solutions, payment gateways, HR systems, and data analytics tools. ERPNext and Odoo offer extensive APIs and plugin ecosystems, enabling communication with third-party applications without any trouble. Odoo's large app marketplace and ERPNext's Frappe apps ecosystem allow organizations to expand functionality without heavy custom development.

Community support & innovation

ERPNext has an extensive community of developers, partners, and end users that boosts innovation, system stability, and troubleshooting. Odoo and ERPNext release regular updates, introduce new modules, improve UI/UX, and enhance security through community feedback and real-world testing. The open-source nature ensures technology transparency, reduces vendor dependency, and promotes experimentation with technologies such as AI, ML, IoT, and automation.

Industry Use Cases and Success Stories

Implementation of ERP across industries has helped them automate workflows, improve collaboration among teams, and reduce operational costs. Deliverydevs implemented ERPNext for Falcon-i, Pakistan's largest IoT fleet management company, which led to 30% faster reporting, 20% more monthly orders, 15% better retention, and 25% less wastage.[23]

Quantum Group reduced functional expenses by 35% after integrating an ERP system that facilitated data sharing across departments. This made it possible for the organization to improve inventory management, track orders effortlessly, and streamline financial systems, reducing costs.

The University of Toronto automated workflows, provided self-service access to real-time data for staff and faculty, and improved analytics by implementing ERP. This enabled them to achieve 25% quicker batch processing and a 50% faster month-end closing time.

Diamondback, an oil and natural gas company, reduced its month-end closing time by 30% and year-end closing time by 25% after ERP implementation.[24]
Odoo implementation enabled Moul'appétit to integrate its sales, inventory, and delivery into a unified platform, offering real-time insights into order statuses, inventory, and delivery schedules.[25]

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	ERPNext	Odoo
Tech Stack	Python MySQL Redis Java Script[26]	HTML5 JavaScript CSS Python PostgreSQL[27]
Hosting Options	Open-source licensing Frappe Cloud Self-hosting	Odoo Online Odoo Online (SaaS) Odoo.sh (PaaS)
Pricing	Shared hosting: $5 /mo onwards Dedicated servers: $200 /mo onwards[28]	One App Free: $0 Standard: $7.25/ user/ month Custom: $10.90/ user/ month[29]
Customization	Full Python/JS customization	Odoo Studio Extensions
AI Support	Supports AI via third-party add-ons	Native AI assistants, Ask AI, automated invoice processing
Ecosystem and Community	Small ecosystem, yet active community	Large global ecosystem, strong partner network
Best for	Small and mid-sized businesses	SMEs and large-sized enterprises

Choose ERPNext if:
- You're a small to medium enterprise (SME).
- You need a simple, easy-to-navigate user interface.
- You want to implement all the modules at once.
- You're looking for a cost-efficient solution with no licensing fees.

Choose Odoo if:
- You're a mid to large-sized organization.
- You need advanced integrations and modules for your workflows.
- You aim to scale and want a comprehensive, easily expandable solution.
- Your organization wants to share access to users across different global regions.
- You want advanced features with AI integration.

Implementation Challenges and How to Overcome Them

Data migration from legacy systems to modern ERP solutions can be time-consuming and complicated, and sometimes incompatible with the new systems. This requires troubleshooting and converting the data into a migratable and usable form. Unprepared employees are another significant hurdle in efficient ERP implementation, making it hard to maximize benefits from the latest ERP software. Inadequate training time, lack of IT skills among users, and inadequate preparation by employees can make ERP implementation challenging.[30] Other implementation challenges include security and compliance considerations, especially for cloud ERP systems, such as ERPNext and Odoo.[31]

While these challenges can make it difficult to implement ERP solutions to improve productivity and outcomes, Deliverydevs makes it easier by:

- Expert data migration from traditional ERPs to Odoo and ERPNext combined with pre-migration validation to minimize data loss and ensure integrity.
- Building a strong user adoption strategy through customized UI, role-based training, and ongoing support.
- Custom API development that ensures seamless integration with legacy or third-party systems for uninterrupted business processes.
- Meeting the data protection requirements through role-based access, encryption, and audits to ensure data security.
- Offering continuous support and optimization to the businesses and facilitating ERP system evolution with business needs.
- Staff augmentation and employee training for successful adoption and operation of the ERP system

The Future of Business Management with ERP

Advanced ERP systems with artificial intelligence and machine learning automate routine tasks and offer better predictability. Studies show that AI-embedded ERP software reduces inventory management costs via improved demand-forecast accuracy.[32] Organizations using AI in ERP can catch demand shifts earlier, reduce stockouts, and classify tasks that require manual effort.[8]
In combination with Machine Learning, IoT data enables condition-based maintenance and automated replenishment managed from the core ERP.[33] Embedded IoT and real-time data tracking shorten decision loops, improve uptime, and lower operational costs. However, it requires carefully designed data pipelines and cloud partitioning to ensure data security and scale.

Odoo future trends

Odoo's recently released Odoo 19 incorporates artificial intelligence features, including AI agents, AI fields, AI-assisted content generation, and document digitalization. AI agents automate routine workflows and provide predictive insights, whereas AI fields reduce inconsistencies and human error by suggesting or auto-filling information in forms and databases. Furthermore, document digitalization extracts key information from invoices and contracts to speed up the process by eliminating manual entry processes. Odoo also focuses on regular updates for SaaS customers, embedding generative and predictive AI into the software. These features aim to speed content creation, automate document processing, and provide data access inside the ERP.[34]

The new version offers dynamic product previews, better SEO, redesigned checkout flows, more template options, and overall UX polishing.
Odoo users will get improved Shop Floor Interface, multi-level packaging support, serial number custom logic, and smart inventory and purchasing dashboards. Moreover, localized tax reporting, better overtime handling, payroll user interface refinements, improved mobile responsiveness, faster load times, and better access management will help businesses streamline workflows and ensure faster functioning. Odoo publishes adoption metrics on its site (millions of users, tens of thousands of community apps, and thousands of partners), reflecting broad global usage across SMEs and growing enterprises.[35]

ERPNext/ Frappe future trends

ERPNext's core platform hosts AI/ML extensions, including file summarization and forecasting apps that can be plugged into ERPNext. The ecosystem and community-led platform offers a growing set of apps and partner solutions that attach ML/ AI capabilities to ERPNext via APIs and extensions. The Frappe community discussions show ML apps provide demand, sales, and inventory predictions integrated with ERPNext data.[14] They have also expanded localization for various countries, including Egypt and Mexico, to facilitate the incorporation of local taxation rules.[36]

Why Deliverydevs

Forward-thinking, transparency, value-driven philosophy

When looking for an ERP partner, technical expertise is not enough; efficient ERP implementation requires transparency and next-gen thinking to make the best out of the modern ERP systems. A 2023 survey of retailers, manufacturers, and distributors concluded that businesses that hired industry experts to implement their new ERP or business system achieved a success rate of 85%.[7]

Our 20+ qualified and experienced subject matter expert engineers at Deliverydevs approach every project with a value-driven philosophy to deliver solutions that not only automate business processes but also drive growth, efficiency, and agility.[37]

We believe in innovation, transparency, and integrity, and put all these into our work to ensure that clients are involved at every step and the results meet your expectations.

Extensive cross-industry experience

Deliverydevs has successfully implemented ERPNext and Odoo solutions in manufacturing, retail, logistics, and other industries. Our rich experience enables us to understand unique industry requirements, allowing us to design and implement ERP workflows, modules, and integrations that solve real operational challenges for your business. Being an Odoo partner further strengthens our credibility in delivering scalable and future-ready ERP solutions.[38]

Agile, collaborative, and ROI-focused approach

Deliverydevs follows an agile methodology, breaking implementations into phases that allow for continuous feedback, testing, and refinement. We promote collaboration, empower employees, and drive innovation across departments to ensure deliver solutions that align with business goals .[39] Our philosophy of working as an extension of the client's team offers you full control, ensuring that the results meet your criteria and expectations. Deliverydevs ensure that ERP systems do not just function but also generate measurable efficiency gains and cost savings.

Staff augmentation and end-to-end support

Inadequate preparation by employees is one of the top ten challenges in ERP implementation, and Deliverydevs combats this issue by offering staff augmentation.[31] Skilled engineers and consultants seamlessly integrate with your internal teams to facilitate implementation, customization, integration, migration, staff training, and ongoing maintenance. This staff training and end-to-end support allow businesses to scale quickly and maintain operational continuity using Enterprise Resource Management.[40]

Conclusion

Modern ERP systems are critical for competitive advantage in the digital era. ERPNext and Odoo offer flexible, cost-effective, and scalable solutions for organizations looking to improve workflows and expand their business. Both offer customizable, modular frameworks, allowing you to implement the system to meet your needs.

At Deliverydevs, we help businesses unlock the full potential of ERP by selecting and implementing solutions that align with their unique operational needs.

Whether you are a small enterprise seeking cost-effective solutions or a large organization aiming for global scalability, our expertise ensures your ERP journey is seamless and ROI-focused.

Contact our experts at Deliverydevs for a [Free Consultation](#) and fullfil your organizational needs for effective ERP adoption.

Reference(s)

[1] https://download.odoocdn.com/static/whitepaper/whitepaper-2023-sales.pdf
[2] https://erpnext.com/files/Scaling%20ERPNext.pdf
[3] https://www.sciencedirect.com/science/article/pii/S0040162523004808
[4] https://Deliverydevs.com/blog/the-future-of-erp-how-erpnext-is-leading-the-way/
[5] https://www.statista.com/outlook/tmo/software/enterprise-software/enterprise-resource-planning-software/worldwide
[6] https://www.fortunebusinessinsights.com/cloud-erp-market-108617
[7] https://www.netsuite.com/portal/resource/articles/erp/erp-statistics.shtml
[8] https://www.gartner.com/en/information-technology/topics/enterprise-resource-planning
[9] https://www.researchgate.net/publication/387763540_Proprietary_vs_Open-Source_ERP_The_Case_of_SAP_and_Odoo
[10] https://www.mordorintelligence.com/industry-reports/open-source-erp-market
[11] https://www.sciencedirect.com/science/article/pii/S0040162523004808
[12] https://www.mordorintelligence.com/industry-reports/open-source-erp-market
[13] https://www.researchgate.net/publication/383560175_AI-driven_demand_forecasting_Enhancing_inventory_management_and_customer_satisfaction
[14] https://frappe.io/erpnext
[15] https://frappe.io/story
[16] https://frappe.io/about
[17] https://www.odoo.com/blog/odoo-news-5/the-odoo-story-56
[18] https://www.odoo.com/
[19] https://www.semanticscholar.org/paper/A-comparative-study-of-proprietary-ERP-and-open-ERP-Lee-Trimi/0407f7c174ae7097b9e79eac5d2d619187d95885
[20] https://www.ijfmr.com/papers/2025/2/40350.pdf
[21] https://nucleusresearch.com/research/single/tco-case-study-sap-versus-oracle/
[22] https://www.semanticscholar.org/paper/A-comparative-study-of-proprietary-ERP-and-open-ERP-Lee-Trimi/0407f7c174ae7097b9e79eac5d2d619187d95885
[23] https://deliverydevs.com/case-studies/falcon-i-erpnext/
[24] https://www.forbes.com/councils/forbestechcouncil/2025/03/24/how-erp-implementation-can-transform-companies-day-to-day-reality/
[25] https://www.odoo.com/blog/customer-reviews-6/improving-seafood-distribution-with-odoo-1336
[26] https://frappe.io/framework
[28] https://frappe.io/erpnext/pricing
[29] https://www.odoo.com/pricing
[30] https://www.scitepress.org/papers/2008/17146/17146.pdf
[31] https://www.researchgate.net/publication/337905839_ERP_issues_and_challenges_a_research_synthesis
[32] https://www.researchgate.net/publication/388156032_Artificial_Intelligence_in_Enterprise_Resource_Planning_A_Systematic_Review_of_Innovations_Applications_and_Future_Directions
[33] https://www.researchgate.net/publication/387955465_IoT-Enabled_Real-Time_Data_Integration_in_ERP_Systems
[34] https://www.odoo.com/odoo-19-release-notes
[35] https://www.odoo.com/page/odoo-vs-SAP-business-one
[36] https://frappe.io/times/february-2025
[37] https://deliverydevs.com/team-profile/
[38] https://deliverydevs.com/odoo/
[39] https://deliverydevs.com/our-story/
[40] https://deliverydevs.com/services