

**AI EMPOWERMENT: REVOLUTIONIZING ERP SYSTEMS FOR SMARTER ORGANIZATIONS****Dr. Sucheta S. Yambal<sup>1</sup>, Dr. Yashwant A. Waykar<sup>2</sup>, Prof. Gadekar Ganesh C.<sup>3</sup>, Vijay Rambhau Bhosale<sup>4</sup>**<sup>1</sup>Assistant Professor Department of Management ScienceDr. Babasaheb Ambedkar Marathwada University, Chh. Sambhaji Nagar  
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ORCID ID - 0000-0002-9693-9738 waykar.yashwant@gmail.com<sup>3</sup>Assistant Professor Smt. Kashibai Navale College of Commerce, Erandwane, Pune. 411046<sup>4</sup>Asst. Professor Jay Bhavani Institute of Management, Badnapur, Chh. Sambhaji Nagar**Abstract:**

*One of the original goals of creating the Enterprise Resource Planning (ERP) system was to help businesses better distribute and allocate their resources. This was the main reason of making it. Enterprise resource planning (ERP) has evolved into an effective means of gathering and then using this data to produce reports that provide a multidimensional perspective of linked data, allowing for the ability to make suitable choices in a timely way. The fact that each division inside the organization generates data in its own isolated way prompted this measure. Given the assertion that "A correct decision made at the wrong time is a wrong decision," it follows that adhering to a schedule to ensure data accuracy is as crucial to ensuring data quality. The manufacturing site is only one of many locations where enterprise resource planning (ERP) systems may automate and integrate a wide range of other production-related business functions. The supply chain, consumers, staff, and finances are just a few of the many typical places that data is sourced from. The ability to automate tasks related to running your company is one of the greatest advantages of using an enterprise resource planning (ERP) system.*

**Keywords:** ERP, modules, decision- making, business, AI.

**Introduction:**

It would be hard to overestimate the extent to which the fast growth of information and communication technology has altered all aspects of computer usage in commercial enterprises. At the same time, the business environment is becoming more complex, and many departments need an increasing amount of inter-functional data flow in order to make choices, get product components in a timely and effective manner, manage inventories, manage accounting and human resources, and provide products and services to consumers. An whole new category of computer programs known as enterprise resource planning (ERP) systems has recently been introduced to the market in order to address these shortcomings. Companies that are large and complex are the primary target audience for these programs. Enterprise resource planning (ERP) is a business software program that asserts to make all of a company's information flow together in a seamless manner. According to Davenport (1998), this comprises information on finances, budgets, staff, the supply chain, and individuals who are clients. In Kumar and Van Hillsgersberg's (2000) definition, enterprise resource planning (ERP) systems are described as flexible information systems that integrate data and information-based activities both inside and across the functional domains of a company. When

you automate routine processes, you not only free up more time and energy to plan strategically, but you also reduce the likelihood that individuals will make errors in their work. Because of this, it provides you with a consistent flow of data in the form of key performance indicators (KPIs). In addition to increasing the value of your products or services, ERP also helps you become more productive. Because ERP software provides small firms with the tools they need, these companies are able to make intelligent business decisions rather of relying on their gut impulses. The data revolution has here, and it is bringing about a change in the way that we manage our companies by providing us with enormous volumes of data, analytical tools, and potential outcomes.

### **Evolution of ERP**

The evolution of Enterprise Resource Planning (ERP) systems has been marked by significant milestones and advancements since their inception in the 1960s. Here's a broad overview of the evolution of ERP systems:

1. **1960s - 1970s: Early Beginnings:** The roots of ERP systems can be traced back to Material Requirements Planning (MRP) systems developed in the 1960s. These early systems focused on production planning and inventory control in manufacturing industries. MRP evolved into Manufacturing Resource Planning (MRP II) systems in the 1970s, incorporating additional functionalities like capacity planning, scheduling, and shop floor control.
2. **1980s: Emergence of ERP:** The term "Enterprise Resource Planning" (ERP) emerged in the 1980s as software vendors began integrating MRP II systems with other business functions like finance, human resources, and sales. ERP systems aimed to provide a centralized solution for managing all aspects of an organization's operations.
3. **1990s: Growth and Expansion:** The 1990s saw rapid growth in the ERP market, with major software vendors such as SAP, Oracle, and Baan dominating the industry. ERP systems expanded beyond manufacturing to serve a wide range of industries, including retail, distribution, services, and government.
4. **2000s: Web-based ERP and Consolidation:** The early 2000s witnessed the transition from client-server architecture to web-based ERP systems, enabling easier access and collaboration across distributed environments. This era also saw consolidation in the ERP market, with major vendors acquiring smaller players to broaden their product portfolios.
5. **2010s: Cloud ERP and Digital Transformation:** Cloud computing emerged as a dominant trend in the ERP landscape during the 2010s. Cloud-based ERP systems offered greater flexibility, scalability, and cost-effectiveness compared to traditional on-premises deployments. Moreover, ERP systems began incorporating advanced technologies such as artificial intelligence, machine learning, and IoT to enable digital transformation initiatives.
6. **2020s and Beyond: Intelligent ERP and Industry 4.0:** In recent years, there has been a growing emphasis on intelligent ERP, leveraging emerging technologies to deliver predictive analytics, automation, and real-time insights. Industry 4.0 trends, such as smart manufacturing, supply chain digitization, and interconnected ecosystems, are shaping the future direction of ERP systems.

Overall, the evolution of ERP systems has been characterized by continuous innovation, expanding functionality, and alignment with changing business needs and technological advancements. As

organizations seek to become more agile, data-driven, and competitive, ERP systems will continue to evolve to meet these evolving demands.

### **Functioning of ERP**

ERP software is made up of many different modules, such as modules for finance (FI), HR, materials management (MM), sales and distribution (SD), accounting (CO), and more. In recent years, companies that make ERP software have added extra features like CRM (customer relationship management) and BI (business intelligence). These apps are being released to work with ERP systems that are already in use. The following are some of the things that Dušanka Lečić and Aleksandar Kupusinac (2013) say about ERP systems: a single system that processes data on a regular basis and in real time; a database that works with all applications; a consistent look and feel across all modules; and a system that can be set up without having to do a lot of study on how to connect apps or databases. That's right, yes. Databases are an important part of enterprise resource planning (ERP) because they make it easier to store, view, process, and verify data. A database that stores a lot of different business transactions as logical transactions is called a transactional database. These kinds of databases are also known as transactional databases. People still think it's hard to set up enterprise resource planning (ERP) systems, even though some features, such as standards for acceptable data input, data type limits, entry layout options, and match code choices, can help make mistakes less likely [2, 3]. Some of the benefits of enterprise resource planning (ERP) systems are better information quality, less data duplication, and better data interaction [3]. Enterprise Resource Planning (ERP) is a paid software package that tries to bring together all the data that moves through a business. For example, this could be information about users, funds, budgeting, HR, or the supply chain (Davenport, 1998). We have [4]. Kumar and Van Hillsgersberg (2000) say that enterprise resource planning (ERP) systems are flexible sets of software that connect all of a business's areas and functions with data and data-based processes. This term also includes software that teaches its users how to do business and gives managers a way to keep track of everything and make planning and talking easier [6]. This is because their processes are uniform, automatic, and focused on transactions. Because of this, ES has to meet the "informational requirements" of management and solve issues with "operational" integration [7,8].

It's not uncommon for managers to make decisions based on incomplete or biased information, even when that information is easy for many people to get. This is much more clear when there is room for different interpretations. When managers have to explain their choices, they often pick and choose which facts to use. Data and ways of making decisions that they already know or are comfortable with are also things they like [9]. According to Gartner, enterprise resource planning (ERP) will be the most important part of any business's management plan. As a result, a lot of businesses are already looking at these systems as the IT base that could make the switch to an integrated and process-based business model easier. For ERP II systems in particular, the goal was to find out what benefits could be gained by listing all the possible tangible and intangible benefits that could be gained during and after an installation. This was done by making a three-dimensional benefit framework that included all of these benefits. This is what the three parts look like: 1) categories that deal with IT systems and organizational structures; 2) benefits that deal with processes; 3) benefits that deal with customers; 4) benefits that deal with operations, management, strategy planning, and money; and 5) benefits that deal with people. Enterprise resource planning (ERP) software usually has a lot of tools that help you make decisions right away. Part of these skills is being able to make choices about planning production, making predictions, and restocking. The flexibility of enterprise resource planning (ERP) tools to meet the needs of businesses that make things as customers order them.

This will also test your ability to plan and make other kinds of decisions [11]. An enterprise resource planning (ERP) system brings together data from many business areas, such as sales, manufacturing, inventory, and banking, so that management can see the big picture [12]. This gets rid of the need to rely on different data sources and makes it easy to look for patterns and trends [13]. Some study shows that managers may be more sure of the choices they make based on data when the data is easier to understand [14].

A lot of research has been done on how ERP features help people make decisions. They also stress how important ERP models are for developing scenarios [15]. With these tools, managers can try out different situations and see what happens in each one before spending resources [16]. ERP also makes it easier to analyze data by giving you reporting tools and screens that turn complicated data into forms that are easy to understand [17]. In this way, managers can quickly spot important signs and decide what to do.

So, managers can be more sure of the decisions they make when they are based on facts instead of gut feelings or old records [14]. Several studies have found that being able to see more info is linked to better decision-making [17]. [18] in Enterprise resource planning (ERP) tools help make sure that many business processes are standardized and run the same way every time. By doing this, the whole company can be sure that everyone is working with the same material and following the same steps. This makes it less likely for mistakes and inconsistencies to happen when collecting and handling data, which leads to more accurate data that can be used to make decisions [13]. Standardized methods also give reliable results, which helps managers make better decisions when they have a better idea of what might happen.

Solutions for enterprise resource planning (ERP) leave a clear audit trail that can be used to keep track of activities and changes to data [19]. Now managers can see where data came from and how it got to them. This makes decision-making more open and accountable. Auditability is important for risk management and regulatory compliance because it makes sure that choices are made in line with moral and legal standards. We can combine the planning, execution, and setup of output all at once by using the business resource planning (ERP) system as a base. A consistent feature structure makes sure that information is shared between parts, which makes integration possible [20]. Forbes says that enterprise resource planning (ERP) tools have a lot of perks. Some of these benefits are higher output, simplified processes, and better decision-making due to real-time data insights. Enterprise resource planning (ERP) software can also improve and simplify business processes, which can help companies cut costs and make more money.

### **Comprehensive steps to implement ERP in an Organization**

A detailed plan outlining the procedure for implementing an ERP system in a company. Make sure that there are defined actions, responsibilities, and deadlines for each stage of the merger process. Following successful implementation, the ERP system requires ongoing support, maintenance, and improvement to ensure optimal performance and adaptability to evolving business requirements. The ERP system may be upgraded and ensured it continues to provide value to the company over time via regular reviews and reports. Streamlined processes, increased productivity, and encouragement of growth may be achieved by following these precise procedures and investing in planning, preparation, and continuous assistance to effectively set up ERP systems.

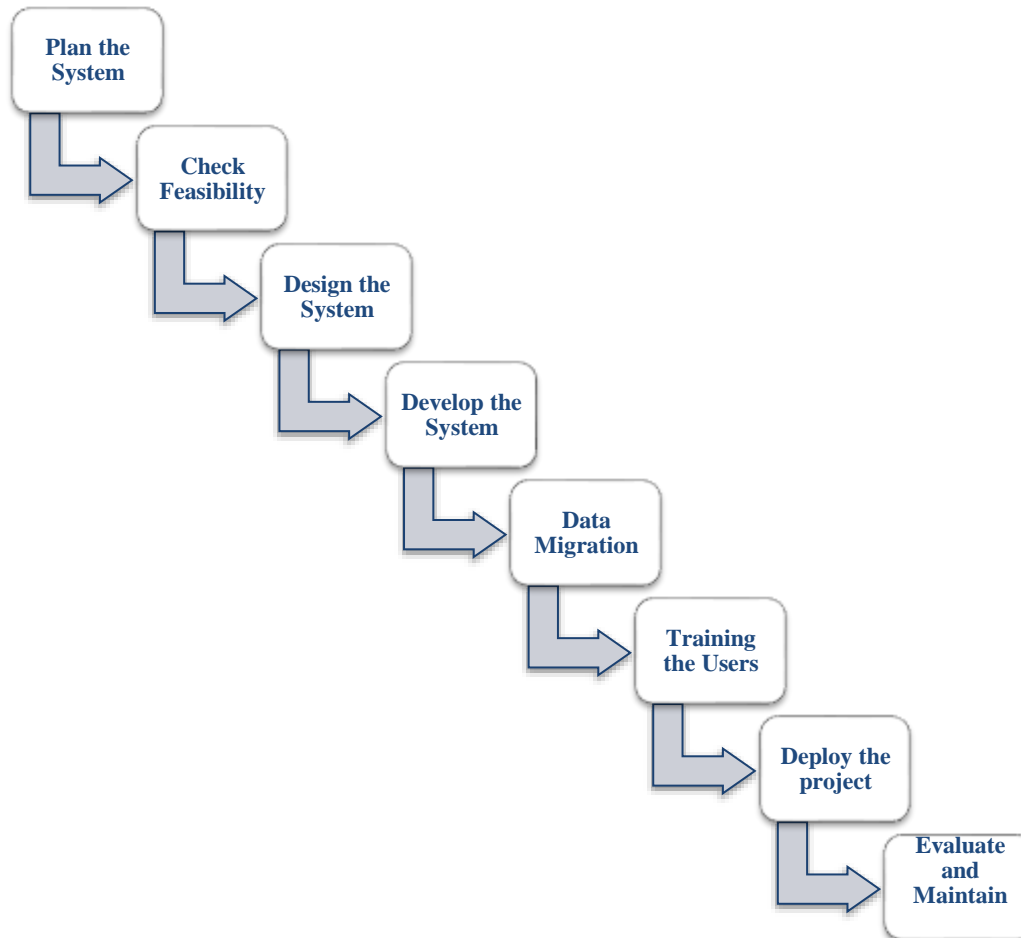


Figure: Showing steps to successfully implement ERP in an Organization

### **ERP promoting Decision making**

Real-time access to data that is compiled from all of an organization's offices and operations is provided to users via enterprise resource planning (ERP) systems. The decision-makers are able to swiftly and correctly learn about how the firm is performing and make the appropriate decisions thanks to the real-time data that is available to them. In addition, enterprise resource planning (ERP) systems come equipped with robust analytics and data capabilities that enable executives to generate their own reports, graphs, and graphics in order to search for patterns, identify trends, and monitor key performance indicators (KPIs respectively). Predictive analytics and projections are made possible by advanced analytics tools that are embedded into enterprise resource planning (ERP) systems. This capabilities provide decision-makers with the ability to speculate on what will occur and what patterns will emerge in the future. Through the simplification of routine tasks, the organization of workflows, and the elimination of the need to manually input data, these enterprise resource planning (ERP) systems help make business operations more efficient.

Currently, a large number of firms across a wide range of industries are using Enterprise Resource Planning (ERP) solutions in order to assist them in making better choices. In order to make choices, ERP systems are used in a number of significant ways, some of which are described below:



Enterprise resource planning (ERP) helps people from different areas and roles in a company talk to each other better by combining data from all of them. With this technology, which allows scenario planning and what-if analysis, decision-makers can run different business situations and figure out what the most likely outcomes would be. By imagining different possible outcomes, decision-makers can look at how different strategies, projects, or outside factors might affect things. This gives them the information they need to make smarter, more effective decisions.

The level of compliance can be checked, possible risk areas can be found, and steps can be taken to deal with compliance issues and lower risks. This information can be used by people who make decisions. A lot of modern enterprise resource planning (ERP) systems have mobile and self-service features that let people who make decisions get to important data and do evaluations whenever and wherever they want. Mobile access to enterprise resource planning (ERP) data helps decision-makers stay up-to-date and respond quickly to changing business situations. This makes them more flexible and helps them make better decisions.

Overall, ERP systems play a central role in enabling data-driven decision-making across organizations, providing decision-makers with timely, accurate, and actionable insights to drive business success.

**Strategic and Tactical Decision Support by ERP in Organizations**

<b>Decision Type</b>	<b>Description</b>	<b>How ERP Helps</b>
Tactical Decisions	These are short-term, focused actions that implement strategic goals.	◆ Inventory Management: ERP provides real-time data on inventory levels, allowing for optimized ordering and reduced stock-outs.
		◆ Production Planning: ERP helps schedule production runs efficiently based on material availability and sales forecasts.
		◆ Resource Allocation: ERP facilitates assigning personnel and equipment to tasks based on workload and skills, maximizing efficiency.
		◆ Pricing Strategies: ERP can analyze cost data to inform product pricing decisions and identify areas for cost reduction.
Strategic Decisions	These are long-term, big-picture choices that define the organization's direction.	◆ Market Expansion: ERP data on customer demographics and sales trends can help identify new market opportunities.
		◆ Mergers and Acquisitions: ERP facilitates due diligence by providing a clear picture of a target company's financial health and operations.
		◆ Product Development: ERP data on customer preferences and production costs can inform product development roadmaps.
		◆ Technology Investment: ERP helps assess the potential return on investment (ROI) for new technologies.

ERP systems are very effective in situations in which managers are required to make decisions that are both strategic and direct. The Enterprise Resource Planning (ERP) system provides you with real-time information on inventory levels, work schedules, and resource sharing, allowing you to make tactical choices. These decisions are intermediate actions that you may take to achieve your strategic objectives. Because of this, it is able to make purchases in a more effective manner, to plan production in a more efficient manner, and to establish pricing based on data. When it comes to the strategic side of things, where long-term plans are developed, ERP is helpful in finding new markets since it looks at client demographics and sales patterns. Additionally, it may assist in conducting due diligence during mergers and acquisitions, as well as utilizing client preferences and production costs to assist in the planning of product creation. Enterprise resource planning (ERP) provides managers with the knowledge they need to make intelligent decisions at every level, which ultimately results in success in both the short term and the long term.

The table drawn below shows the Qualitative Analysis with respect to managers and their responses regarding ERP systems implemented in the organizations.

Question	Managers Response	Positive/ Negative
Is manager better informed with ERP's added information? (Answers recorded apart from 'of course yes')	-ERP helps make decision and real-time data keeps manager well informed. - Information specifically visual give added company insights making it easy to develop tactic and strategic decisions. - Reports provide effective decision making opportunities thus augmenting managerial skills.	Positive
Are you able to do workforce optimization and efficient resource utilization with ERP? (Answers 'How') Most elaborate and precise answers are selected.	-Resource allocation with ERP has been a major win. We can see everyone's workload and skillsets, allowing us to assign tasks more effectively and get the most out of our team. - But it's not just about efficiency. ERP also helps us identify underutilized resources. We can see if someone consistently finishes tasks early and leverage their skills on more complex projects. It's like having a hidden reserve of talent we can tap into. - We have a clear picture of everyone's availability and expertise. This lets us assign tasks more strategically.	Positive
Is ERP friendly enough to be integrated seamlessly in existing system?( Answers user-friendliness of an ERP system)	-Integrating ERP with existing legacy systems can be complex and time-consuming. Compatibility issues can disrupt workflows and lead to data inconsistencies. - ERP systems can be complex, with a steep learning curve for both managers and employees. This can lead to frustration and resistance to change. - The success of ERP hinges on accurate data entry. Inconsistent or inaccurate data can lead to poor decision-making and system errors.	Negative
Do you consider ERP as a powerful tool to effective decision making on day-to-day basis?	-ERP integrates data from multiple departments, giving managers a holistic view of the organization. This allows them to identify trends, anticipate problems, and make more informed decisions across different functions. - ERP systems offer simulation tools that allow managers to test different scenarios before making a decision. - ERP allows managers to easily access and analyze data to support their decision-making. This can be	Positive



	<p>particularly helpful for tasks like resource allocation, pricing strategies, and inventory management.</p> <ul style="list-style-type: none"> <li>- ERP provides up-to-date information on various aspects of the business, from inventory levels and production schedules to sales figures and customer interactions. This allows managers to base their decisions on the latest information, not outdated reports.</li> </ul>	
Opinion of managers on taking decisions without the aid of data/reports available using ERP.	<ul style="list-style-type: none"> <li>- Since ERP can identify trends and patterns in data that might not be readily apparent with manual processes. Skipping ERP can make managers miss out on valuable opportunities for market expansion, product development, or cost reduction.</li> <li>- Manual data entry and analysis are prone to human error; this can lead to inaccurate reports and flawed decisions.</li> <li>- Without ERP, managers may struggle to compete effectively in a fast-paced market.</li> <li>- Not using ERPs might lead to bottlenecks, underutilized personnel, and missed deadlines.</li> </ul>	Positive

Field Survey

### **Expectations vs. Reality: Output from ERP Systems in Organizations**

ERP systems hold immense promise for organizations, streamlining operations and empowering data-driven decisions. However, the reality can sometimes fall short of expectations. Here's a comparison:

<b>Feature</b>	<b>Expected Outcome</b>	<b>Actual Outcome</b>
Data Integration	Seamless flow of data across all departments	Data silos may persist due to incomplete migration or poor integration with legacy systems.
Real-time Visibility	Up-to-date information readily available for decision-making	Delays in data entry or reporting can hinder real-time accuracy.
Improved Efficiency	Optimized processes, reduced manual work, faster turnaround times	Complex workflows may remain, user adoption can be slow, initial implementation can be disruptive.
Enhanced Decision-making	Data-driven insights leading to better business decisions	Data quality issues (inaccuracy, inconsistency) can lead to flawed decisions.
Reduced Costs	Savings on inventory management, resource allocation, etc.	Hidden costs like ongoing maintenance, customization, and training can emerge.

Increased Collaboration	Enhanced communication and knowledge sharing across departments	Cultural resistance to change and soloed mindsets can persist.
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**Pattern identification:**

Business resource planning (ERP) systems store a huge amount of information from many parts of the business. When properly examined, this data can show trends that couldn't be seen before, which makes it easier for managers to make choices. So, ERP data can be looked at over time to find patterns in how customers act, how much it costs to make things, how much is sold, and how much stuff is on hand. This can be done with the help of the trend-spotting method. With these trends as a guide, managers may be able to better predict future demand, make the best use of resources, and find growth possibilities.

Advanced analytics technologies that are related to ERP may be able to use data from the past to make predictions about what will happen in the future. This lets managers make proactive choices, like predicting when they will run out of stock or finding likely equipment problems early on, before they mess up operations

. Enterprise resource planning (ERP) data on the types of people who buy things and how they buy them could be used to divide customers into groups. This makes it possible to run focused marketing efforts, make things that fit the wants of specific customers, and make customers happier in general.

Enterprise resource planning (ERP) systems can be set up to send alarms when standards or other conditions that were initially set are not met. This helps managers spot possible issues early on and fix them before they get worse.

can learn a lot from ERP data trends that they wouldn't be able to get from single data points. This makes them more confident in their choices, which in turn lowers costs, boosts output, and cuts down on the number of decisions that need to be made.

**Artificial Intelligence in Organizations: Enhancing Efficiency and Decision-Making**

In the rapidly evolving business world of today, an increasing number of firms are using Artificial Intelligence (AI) solutions in order to improve their decision-making processes and their overall efficiency across a wide range of domains. It is possible for artificial intelligence to do beneficial tasks such as predictive analytics, intelligent automation, and tailored insights when it is coupled with business systems such as enterprise resource planning (ERP) systems within an organization. Using historical data from enterprise resource planning (ERP) systems, for instance, AI-powered prediction analytics may make educated guesses about future demand patterns and trends. Businesses are able to take preventative measures for the management of their supplies, the planning of their production, and the forecasting of their sales [21]. Additionally, intelligent automation that is enabled by artificial intelligence may make typical tasks in ERP systems simpler to do, such as inputting data, managing orders, and processing invoicing.

Because of this, the amount of labor done by humans is reduced, errors are avoided, and the process is sped up [22].

Adding artificial intelligence to enterprise resource planning (ERP) systems not only makes operations more effective, but it also assists firms in making smarter decisions based on data. With the use of AI-powered analytics, businesses are able to get a deeper understanding of their data and receive one-of-a-kind recommendations that are tailored to their specific needs and objectives [23]. Furthermore, artificial intelligence algorithms have the capability to discover peculiar things and potential dangers inside ERP data, which enables organizations to combat fraud, improve security, and ensure that they adhere to the laws [24]. Using artificial intelligence in combination with enterprise resource planning (ERP) systems may help businesses increase the satisfaction of their customers, simplify their business operations, and achieve a competitive advantage in today's fast-paced market.

### Future ERP – Intelligent ERP



AI + ERP, also referred to as AI-powered ERP or intelligent ERP, combines the data management capabilities of Enterprise Resource Planning (ERP) systems with the analytical power of Artificial Intelligence (AI).

What to Expect:

- 1) **ERP Systems:** These are software suites that integrate and manage various business functions like finance, inventory, production, human resources, and sales. They provide a centralized platform for data collection, storage, and analysis.
- 2) **Artificial Intelligence (AI):** This field of computer science focuses on creating intelligent machines that can learn and make decisions based on data. AI techniques include machine learning, natural language processing, and computer vision.

When combined, AI and ERP create a powerful system with several advantages:

**Enhanced Data Analysis:** AI algorithms can analyze vast amounts of ERP data to identify trends, patterns, and anomalies that might be missed by humans.

**Predictive Insights:** AI can leverage historical data to predict future outcomes, such as sales forecasts, potential supply chain disruptions, or equipment failures.

**Automated Decision-Making:** AI can automate routine tasks within the ERP system, freeing up human resources for more strategic work.

**Improved Efficiency:** By streamlining processes and automating tasks, AI-powered ERP can significantly improve operational efficiency.

**Data-Driven Decisions:** AI empowers managers with real-time insights to make more informed and data-driven decisions across various business functions.

Overall, AI + ERP represent a significant advancement in business management, offering increased automation, improved decision-making, and ultimately, a more competitive advantage.

### **Impact on Key Industries from ERP and AI Integration**

When artificial intelligence is incorporated into enterprise resource planning (ERP) systems, it will result in increased speed, enhanced decision-making, and creative new ways of doing business. A broad range of different types of enterprises and sectors will be significantly influenced as a result of this. In addition to the foregoing, the following are some of the key places that will be affected:

The use of artificial intelligence makes it possible to forecast in advance the time at which a piece of machinery will become malfunctioning and need repair. As a consequence, this leads to a more effective use of resources and a decrease in the comprehensive amount of downtime that takes place.

**Quality Control:** Picture recognition and data analysis that are driven by artificial intelligence may be able to aid in boosting quality standards by ensuring that faults in photographs and data are recognized and addressed. The use of artificial intelligence has the potential to transform the way supply chain management is carried out. This might be accomplished via the enhancement of transportation, demand forecasting, and resource optimization.

As it pertains to the retail sales market

Improvements in the degree of customization of the purchasing experience Through the provision of tailored suggestions that are based on the interests and activities of consumers, artificial intelligence has the ability to improve the whole shopping experience.

The application of artificial intelligence enables shops to have precisely the right number of items on hand, hence reducing the risk of either running out of stock or having an excessive amount of stock. This is made possible by the fact that AI is able to more correctly forecast demand. For the purpose of assisting in the process of sales forecasting, artificial intelligence may analyze sales data in order to recognize trends and find the most efficient practices for pricing products and services.

And last but not least, medical procedures and care

Management of Patients: Artificial intelligence has the ability to increase the productivity of routine tasks by simplifying the process of scheduling patients, delivering bills, and preserving records. This might be realized via the management of patients.

When artificial intelligence analyzes data relevant to patients, it is able to make predictions about the progression of illnesses, the needs of patients, and the most efficient way to use resources. Making forecasts like that is the essence of what predictive analytics is all about.

Artificial intelligence is able to keep track of the number of pharmaceuticals and medical supplies that are available. This allows it to guarantee that these items are always accessible when they are needed, hence reducing the amount of waste that happens.

#### Finance and banking

Through the examination of certain patterns of transactions and the identification of occurrences that do not seem to be legitimate, artificial intelligence has the capability to detect and prevent fraudulent activity.

Artificial intelligence has the capability to analyze a client's credit risk and financial health, which helps people to make better educated decisions regarding loans and investments. This is an example of risk management.

The ability of virtual assistants that are governed by artificial intelligence to reply to requests from consumers, manage their accounts, and even give them with financial counsel is a significant advancement in the field of customer service.

By assessing applications, determining which people are the most qualified, and generating informed assumptions about how successfully workers will fulfill their jobs, artificial intelligence has the potential to speed up the process of recruiting new employees.

Data on the degree of involvement of workers might be analyzed by an artificial intelligence system to evaluate the extent to which workers are engaged. Based on this information, the system could then offer solutions to increase both mood and productivity. In addition, when it comes to training and development, artificial intelligence may be able to customize training programs to the distinctive behavior and learning style of each individual worker. This is a significant advantage.

Due to the fact that the AI for Supply Chain and Logistics is able to identify the shipping methods that are the most effective, it is feasible to cut costs in half and cut delivery times in half. Inventory and supply chain management are executed with more precision as a result of the ability of artificial intelligence to create informed estimations about the quantity of a product that will be acquired. Artificial intelligence has the potential to expedite warehouse operations by performing a variety of functions, including the selection of goods, the packing of those supplies, and the management of those supplies.

Through the process of detecting when power plants and other utility assets will need repair, artificial intelligence (AI) has the ability to cut down on the amount of money that is spent on labor and unplanned downtime in the utility and energy sectors. The ability of artificial intelligence to assess patterns of use and identify solutions to make energy consumption more efficient while simultaneously lowering waste is a significant advantage. Talkbots that are driven by artificial intelligence may be able to manage queries and requests from customers seeking help via customer service. Additionally, as a consequence of this, you will be able to reply to them in a more timely manner and maintain overall customer satisfaction.

For the goal of improving telecommunications networks, artificial intelligence has the ability to boost network speed and foresee challenges, which would result in better service. This would be accomplished by predicting probable problems.

The capacity to examine customer data in order to recognize trends is a capability that artificial intelligence will possess. You will be able to exceed the expectations of your customers and, in general, make them happy if you choose this course of action.

To identify and prevent fraudulent activities such as unauthorized access and theft of money, artificial intelligence has the capability to detect and prevent these actions.

The capacity of artificial intelligence to construct learning paths that are personalized to each individual student by taking into consideration how well they have fared in the past and how they wish to study comes from the fact that it can create these learning pathways.

The use of artificial intelligence has the potential to perform a broad range of administrative tasks, such as processing applications, grading, and placing orders. As a consequence of this, the administration functions in a more efficient manner. There is the possibility that students might get quick support and teaching from chatbots that are administered by artificial intelligence.

### **Predictive Maintenance in the Automotive Industry**

It is possible to predict a vehicle's repair needs with the help of artificial intelligence. This will cut down on the time the vehicle is out of service and make it last a lot longer. With the help of artificial intelligence, the supply chain for car parts could be simplified. This would cut down on delays in both production and delivery. This could be thought of as a part of supply chain management. Among its many skills, artificial intelligence can sort through customer data to provide personalized services and make the shopping experience better all around.

There will be changes in many areas when artificial intelligence is added to business resource planning (ERP) tools. Some of these areas are automating processes, making decisions better, making the customer experience better, and managing resources more efficiently, to name a few. When this change is put into action, efficiency will go up, prices will go down, and new business models will appear in every part of the economy.

### **Conclusion:**

One possible conclusion is that companies could greatly improve their risk management by putting Artificial Intelligence (AI) into Enterprise Resource Planning (ERP) tools. Giving business ERP the chance to connect with AI could make AI systems much better at finding mistakes in ERP data. In turn, this could help companies prevent scams, improve security, and make sure they follow the rules. It's possible that this will give businesses a huge advantage. By using analytics that are powered by artificial intelligence (AI) and intelligent automation, businesses can make better decisions, manage risks better, and become more resilient in today's fast-changing business world. More and more people think that as artificial intelligence (AI) grows and improves, it will play a bigger part in making enterprise resource planning (ERP) tools better at managing risk. Because of this, businesses will have these new chances to come up with new ideas and gain a competitive edge.

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