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Role of ERP Implementation on Organizational Effectiveness: A Quantitative Research

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## Abstract

Organisations can gain a lot from implementing Enterprise Resource Planning (ERP) systems, including better coordination, enhanced effectiveness, lower operating costs, and support for strategic planning. These systems offer a basis for order and uniformity, facilitating simple information access between multiple corporate departments. The success of ERP implementation varies, though, and some implementations end up costing more than expected or aren't finished. To get the most out of ERP systems, organizations need to set reasonable goals and deal with any problems that might arise. To achieve competitive advantages through ERP investments, the literature emphasizes the significance of complementary management and technology resources. Despite the benefits, misunderstandings about the system's potential and other issues add to the widespread dissatisfaction with the effectiveness of ERP systems.

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## Introduction:

Systems for enterprise resource planning (ERP) have been found to improve an organization's overall performance on both a financial and non-financial level. According to studies, implementing an ERP increases financial metrics including profitability, return on assets, and operational income. ERP systems make it easier for employees and management to access information by establishing a foundation of discipline and consistency across multiple service operations. As a result, by having real-time information and the flexibility to respond to changing conditions, organizations that use ERP gain a competitive advantage. For many organizations, the advantages of ERP surpass the expenses despite the significant upfront expenditure. ERP (Enterprise Resource Planning) is a critical instrument for boosting organizational effectiveness and is commonly acknowledged as such. It is crucial in streamlining and integrating numerous organizational processes, which boosts productivity and efficiency. ERP gives improved access to accurate and up-to-date information and facilitates informed decision-making by offering a centralized platform for data management. ERP is appropriate for a variety of organizations, including commercial, technical, and functional units, thanks to its ready-to-use software and extensive information. When implemented, it can alter organizations, improving their overall efficiency and productivity. (Egdair et al., 2015).

The main goal of ERP system investments is to improve an organization's non-financial and financial performance. Efficiency and effectiveness gained from ERP deployment immediately affect financial performance, including profitability and return on investment. The firm's profitability, on the other hand, is ultimately influenced by non-financial performance, which includes a variety of factors like customer service, product dependability, and knowledge management. ERP systems give a more comprehensive picture of an organization's overall performance by addressing these non-financial performance aspects. ERP implementations also help to increase pricing accuracy, which helps to maintain profit margins better and reduce invoicing errors, which increases revenue. A reduction in personnel, selling expenses, and general administrative costs can be achieved through using ERP systems, as well as structural modifications that encourage economies of scale. In general, ERP systems are essential for maximizing both financial and non-financial performance, which improves operational effectiveness and increases profitability for businesses. (Salarzadeh Jenatabadi et al., 2013).

#### **Literature Review: -**

Organisations all over the world have implemented a variety of technological systems to improve their goods and services, with ERP emerging as a prominent player in recent years. ERP differs from legacy systems in terms of its capabilities for coordinating information, using applications, databases, interfaces, and architectural procedures. ERP systems are becoming a crucial tool for raising organizational performance as a result. Numerous studies have emphasized the broad integration and intricacy of ERP and their strong favorable effects on performance. It's crucial to remember, nevertheless, that some research has indicated adverse performance implications of ERP deployment. Because of this, the success of ERP adoption varies among organizations and is influenced by important elements like top management support and commitment, organizational culture, training, and education. (Al-Dhaafri et al., 2016).

ERP systems are crucial to a company's success or failure in the fiercely competitive global market of today. Their primary duty is to coordinate functional activities and operate as a crucial component within a corporation by organizing and integrating multiple data entry and processing systems. Implementing ERP has advantages including better inventory management, cost savings, simpler business processes, and quicker reporting. It makes management jobs and client communication easier, which improves operational effectiveness, customer and financial management, and internet-based applications. However, the results of ERP adoption vary, and some businesses find success using systems they developed internally. The effectiveness of ERP projects is dependent on several project management elements, including human resources, information management, risk management, and effective communication. (Sheikh & Sulphrey, 2020).

ERP systems connect many parts of an organization's activities, such as supply chains, back-office operations, and front-office operations, through a suite of application modules. Implementing

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ERP can result in enhanced data analysis, decreased inventories, better customer service, improved process flow, and increased profitability. ERP deployment success can be assessed using both objective financial indicators, such as cost and profit numbers, and subjective indicators based on user impressions. varied stakeholders, including consultants, project managers, system users, and senior managers, may have varied standards for determining whether an ERP initiative was successful. These standards could range from project completion within budget and on time to smooth system operations and the achievement of business benefits and goals. (Dezdar & Ainin, 2011).

ERP systems are extensive software packages made up of modules created for particular organisational tasks like fixed asset management, finance, purchasing, and inventory management. The integration of these modules, which is a major area of attention for project managers, is where ERP's complexity lies. Gaining a competitive edge and accomplishing organisational goals require effective leadership during the ERP installation process. Sales, customer support, distribution, buying, manufacturing, production planning, and finance are just a few of the business processes that are integrated by ERP. It is a cutting-edge technical approach that makes it possible to integrate crucial data across several departments of an organisation, including finance and accounting, customer relationship management, supply chain management, and human resources. (Al-Dhaafri et al., 2014).

Due to their special qualities and organisational challenges, ERP system evaluation presents a distinct difficulty in IS research, necessitating novel analyses and methodologies. Although there have been attempts to evaluate these systems, there is still a need for appropriate evaluation techniques and measurement tools. Previously developed methods and tools become obsolete due to the constantly changing nature of technology and its complicated usage environment, indicating the necessity for adaptation or the creation of new ones. Despite this, earlier assessment studies offer a theoretical and empirical foundation for future study, addressing the issues and creating evaluation models for ERP systems. (Uwizeyemungu & Raymond, 2010).

The link between ERP systems and organisational performance has been the subject of numerous research. The use of the system, reengineering of business processes, consultant selection, education and training, and management commitment are among the critical success factors (CSFs) that researchers have identified as having an impact on ERP deployment. ERP's effect on organisational performance, however, has produced mixed results, with some research pointing to a general improvement and others focusing on restricted advantages in particular areas or dependence on essential success elements. However, studies show that ERP implementation eventually results in more steady financial performance. The improved order and finance cycle, cost savings, on-time delivery, inventory management, and customer relations are all concrete advantages of ERP. ERP systems provide flexibility, align goals, manage performance concerns, and streamline corporate operations to offer technical and operational advantages. (Al-Dhaafri et al., 2013).

To respond to market changes and technological improvements, ERP deployment entails modifying, configuring, and integrating information flows and business processes. To achieve this, it is necessary to change rigid processes into lean, flexible, and knowledge-based ones, supported by the necessary technology, procedures, and training. Through simplified procedures, integrated management activities, quicker reporting, and greater information capabilities, successful ERP adoption improves business performance. According to the report, prospectors prioritise market research and flexibility to take advantage of new prospects, while defenders put an emphasis on cost effectiveness and established markets. By delivering timely information for competitive advantage and strategic objectives, ERP systems, as management information systems, have an impact on business strategy. Implementing ERP enables activities like mergers, product innovation, cost leadership, and differentiation by facilitating a prospector-type strategy. Implementing ERP has a favourable impact on a company's prospector-style business strategy. (Hassab Elnaby et al., 2012).

Integral computer software programmes called ERP systems automate organisational tasks and guarantee data, process, and implementation integration. Due to its capacity to handle problems including poor performance, excessive costs, complicated work procedures, and poor information quality, ERP is employed in a variety of industries. Improved information generation, streamlined business operations, cost savings, increased productivity, improved financial performance, higher levels of customer satisfaction, and the possibility for e-commerce deployment all benefit businesses. However, there are obstacles to implementing ERP systems, including the need for technical staff that is trained, a high initial investment, high consulting service costs, a need for intensive training, higher implementation costs with programme modifications, the length of time needed for system harmonisation, and resistance to organisational change. (Akça et al., 2013). Purchasing ERP systems by itself does not ensure a profitable investment or competitive benefits. To maximise ERP investments and boost competitive advantage, organisations must invest in complementary technological and management capabilities. The primary factors influencing how well business process function are technical and human competencies and their interaction. (Chen, 2016).

The purchase and implementation of an ERP system has several advantages, including improved coordination between functional departments, increased process efficiency, decreased operating costs (such as costs associated with production, marketing, and help desk support), facilitated day-to-day management, quick information access for managerial control and decision-making, and support for strategic planning by efficiently allocating available resources. The adoption of ERP systems is not always successful, despite these qualities. Many businesses find it difficult to fully justify their expenditures on ERP software because a sizeable fraction of installs end up costing more than they anticipated and a sizeable portion are left unfinished. Furthermore, soon after introduction, ERP systems frequently fall short of organisational objectives. Misperceptions about the system's capabilities and other issues are the underlying causes of this broad

dissatisfaction. To maximise the advantages and results of the system, organisations must approach ERP adoption with realistic expectations and deal with any issues. (Maditinos et al., 2011).

### Objective:

To measure the role of ERP implementation on organizational effectiveness

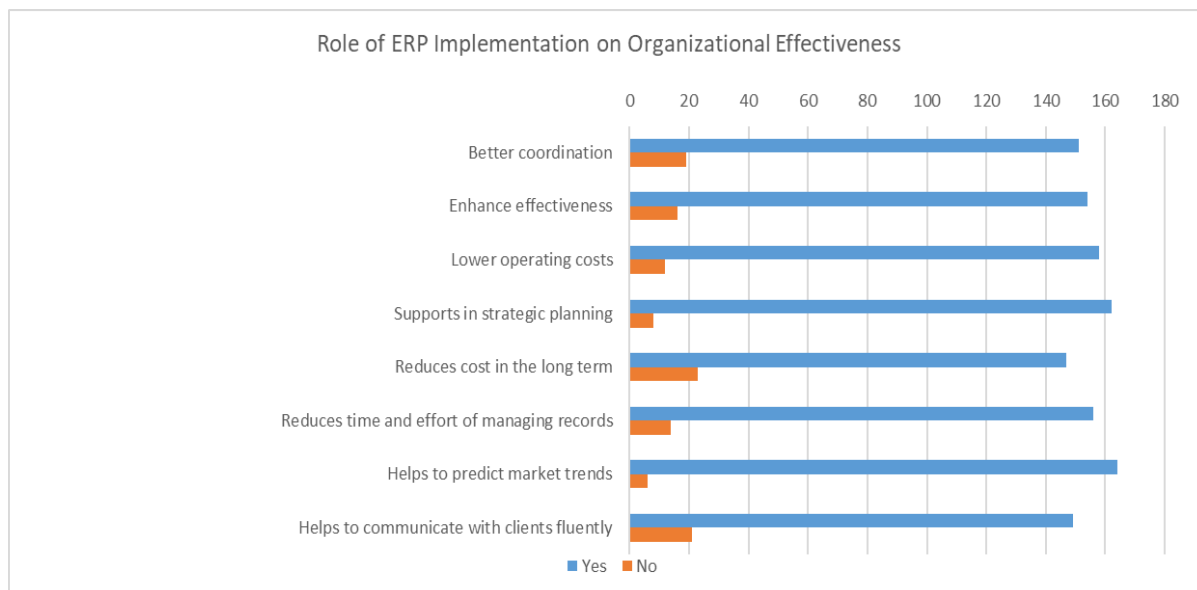
### Methodology:

This study is descriptive in nature in which the data were obtained from the 170 respondents to find the role of ERP implementation on organizational effectiveness. A checklist question was used to analyse and interpret the data. In a checklist question respondents choose “Yes” or “No” for all the questions.

### Data Analysis and Interpretations:

Table 1 Role of ERP Implementation on Organizational Effectiveness

SL No.	Role of ERP Implementation on Organizational Effectiveness	Yes	% Yes	No	% No	Total
1	Better coordination	151	88.82	19	11.18	170
2	Enhance effectiveness	154	90.59	16	9.41	170
3	Lower operating costs	158	92.94	12	7.06	170
4	Supports in strategic planning	162	95.29	8	4.71	170
5	Reduces cost in the long term	147	86.47	23	13.53	170
6	Reduces time and effort of managing records	156	91.76	14	8.24	170
7	Helps to predict market trends	164	96.47	6	3.53	170
8	Helps to communicate with clients fluently	149	87.65	21	12.35	170



**Figure 1 Role of ERP Implementation on Organizational Effectiveness**

Table 1 and Figure 1 show the role of ERP implementation on organizational effectiveness. It was found that around 96.4% respondents believes that ERP implementation helps to predict market trends, Supports in strategic planning (95.2%), Lower operating costs (92.9%), Reduces time and effort of managing records (91.7%), Enhance effectiveness (90.5%), Better coordination (88.2%), Helps to communicate with clients fluently (87.6%) and Reduces cost in the long term (86.4%).

#### **Conclusion: -**

In summary, implementing ERP systems has proven to be advantageous for businesses, improving coordination, effectiveness, and decision-making procedures. Organisations must, however, approach ERP deployment with reasonable expectations and deal with any potential difficulties. To maximise the benefits of ERP investments and achieve competitive advantages, complementary technology and management resources are required. To fully realise the promise of ERP installation for enhancing organisational effectiveness, organisations must traverse its intricacies.

#### **References: -**

- [1] Akça, Y., Esen, Ş., & Özer, G. (2013). The Effects of Education on Enterprise Resource Planning Implementation Success and Perceived Organizational Performance. *International Business Research*, 6(5).
- [2] Al-Dhaafri, H. S., & Al-Swidi, A. K. (2014). The entrepreneurial orientation and the organizational performance: Do enterprise resource planning systems have a mediating role? A study on Dubai police. *Asian Social Science*, 10(2), 257.
- [3] Al-Dhaafri, H. S., Al-Swidi, A. K., & Yusoff, R. Z. B. (2016). The mediating role of TQM and organizational excellence, and the moderating effect of entrepreneurial organizational

- culture on the relationship between ERP and organizational performance. *The TQM Journal*, 28(6), 991-1011.
- [4] Al-Dhaafri, H. S., Bin Yusoff, R. Z., & Al-Swidi, A. K. (2013). The Effect of Total Quality Management, Enterprise Resource Planning and the Entrepreneurial Orientation on the Organizational Performance: The Mediating Role of the Organizational Excellence --- A Proposed Research Framework. *International Journal of Business Administration*, 4(1).
- [5] Chen, S., Elbashir, M., Peng, X., & Zhu, D. (2016). The effect of ERP systems competences on business process and organizational performance. *International Journal of Management Theory and Practices*, 17(1), 5-35.
- [6] Dezdar, S. & Ainin, S. (2011). The influence of organizational factors on successful ERP implementation. *Management Decision*, 49(6), 911–926.
- [7] Egdair, I. M., Rajemi, M. F., & Nadarajan, S. (2015). Technology factors, ERP system and organization performance in developing countries. *International Journal of Supply Chain Management*, 4(4), 82-89.
- [8] Hassab Elnaby, H. R., Hwang, W., & Vonderembse, M. A. (2012). The impact of ERP implementation on organizational capabilities and firm performance. *Benchmarking: An International Journal*.
- [9] Maditinos, D., Chatzoudes, D., & Tsairidis, C. (2011). Factors affecting ERP system implementation effectiveness. *Journal of Enterprise information management*, 25(1), 60-78.
- [10] Salarzadeh Jenatabadi, H., Huang, H., Ismail, N. A., Binti Mohd Satar, N., & Jasimah bt Wan Mohamed Radzi, C. W. (2013). Impact of Supply Chain Management on the Relationship between Enterprise Resource Planning System and Organizational Performance. *International Journal of Business and Management*, 8(19).
- [11] Sheik, P. A., & Sulphrey, M. M. (2020). Enterprise Resource Planning (ERP) As a Potential Tool for Organizational Effectiveness. *Webology*, 17(2).
- [12] Uwizeyemungu, S., & Raymond, L. (2010). Linking the Effects of ERP to Organizational Performance: Development and Initial Validation of an Evaluation Method. *Information Systems Management*, 27(1), 25–41.