Study and Analysis of ERP and its Impact on the Performance of Employees

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Abstract: This study aims to highlight the impact of using the enterprise resource planning system according to the requirements of its application on job performance, as a model for knowledge management, skills management and its intellectual capital. In light of a dynamic environment known for change and a terrible increase in the field of technology based on knowledge and its use, which contributes to the development of creative performance by improving job performance and providing an encouraging environment for it, relying in this study on the descriptive analytical approach of the study, while in the field side a case study was adopted , using the questionnaire tool to collect information from the various users of the system, including employees and executives, in addition to the interview to obtain interpretations of some results. We relied on a data analysis program, and we reached several conclusions, including that the company realizes the importance of using the requirements of the ERP system that it uses at a high level. Achieving strategic goals for the company to help it compete and continue.

Keywords: ERP, the enterprise resource planning system, technological progress.

INTRODUCTION

With the tremendous technological progress and the development of the information revolution, many advanced means and methods have appeared to increase the effectiveness and efficiency of production processes [Bavelier, D. *et al.*, 2006; Merabet, L.B. *et al.*, 2010; BaveLier, D. *et al.*, 2000]. ERP is an Enterprise Resource Planning (ERP) system, one of the most popular software in the field of connecting and integrating the chain of basic and supporting business processes. ERP provides information that helps the organizational chart to make effective use of the available resources [Bavelier, D. *et al.*, 2001; Finney, E.M. *et al.*, 2001]. It is an informational project designed to coordinate all the resources, information, and activities necessary to complete practical actions, such as accounting and human resources in an organization. This is what makes Sonatrach unique from other institutions in implementing the ERP system to improve its performance. Accordingly, we pose the following problem: What is the impact of Sonatrach's use of the "AVAL" branch of the ERP system in order to improve its performance, and we will try, through this research paper, to review the concept of the ERP system and institutional performance [Fine, I. *et al.*, 2005; Lomber, S.G. *et al.*, 2010].

There are several definitions of human resource planning, as some see it as a complete management process and not just attracting employees, as it is linked to the analysis and statistics of the organization's needs of human resources in various circumstances.

Some see it as the main task of human resource management because it is concerned with the use of manpower resources [Armstrong, B.A. *et al.*, 2002; Di Russo, F. *et al.*, 2002; Luck, S.J. *et al.*, 1990].

A set of policies and laws related to employees within the organization, which in turn aims to determine the number of workers that the organization needs and to determine the level of expertise that the organization needs to perform the tasks on time and the permissible cost for the current or being established project, in order to achieve the work objectives in terms of the production process [Saarinen, J. *et al.*, 1989; Comon, P, 1994; Mennes, M. *et al.*, 2010].

Robbins, (2001) defines a humanitarian response plan as:
"The process by which an organization ensures that it has the right number and types of people in the right places, at the right time, and is able to complete those tasks effectively and efficiently which will help the organization achieve its goals [Perrin, F. *et al.*, 1989].

METHOD

A Decision Tree is utilized to look at whether insightful innovation can be incorporated with an ERP framework, bringing about an I-ERP framework. The Integrating Machine Learning (ML) into an I-ERP application can upgrade proficiency in foreseeing, getting the hang of, handling, and using organization assets furthermore, strategic approaches. I-ERP framework assists clients with making a connection point with in-memory figuring innovation, which can help with key data get-together and business change techniques. Additionally, the highlights assist the organization with acquiring an all the more clear future with the

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smart ERP frameworks through the assortment of significant functional information. I-ERP framework gives guaging arrangements and constructs prescient critical thinking means to utilize data that supports organization improvement. Besides, as I-ERP.

ERP systems and Business Intelligence

The ERP framework is a bundle of programming items consolidated to help business cycles such as planning, request satisfaction, finance, human administration, creation, production network, strategies, deals, furthermore, client support (Amalnick. *et al*., 2011). There are various

modules found in an ERP framework that the organization evaluates its capabilities against every module. Every module is connected to other people, similar to the clients from various divisions to various capabilities in the organization. They utilize the ERP framework with the capacity of survey various region of the organization, with the most basic regions for checking being coordinated operations and request satisfaction. The quantity of organizations overall that have carried out ERP is accounted for to be more than 30,000.

Fig 1: Components of an ERP system

Intelligent ERP

Enterprise resource planning (ERP) is enterprise resource planning. But what is the meaning of this concept? In its most general form, Enterprise Resource Planning (ERP) can be defined as the set of all the essential business processes needed to run a company: finance, human resources, production, supply chain, services, procurement, and more. At its simplest level, Enterprise Resource Planning (ERP) helps you to efficiently manage all these processes in an integrated system. It is often referred to as an organization's record keeping system.

The finance department needs an ERP system to close accounts and the sales department needs it to manage all customer orders. The logistics department relies on a stable ERP software solution to deliver the right products and services to customers on time. Accounts payable management needs an ERP system to pay suppliers correctly and on time. To make timely decisions, management needs to be able to get a complete picture of the company's activities instantly and banks and shareholders require accurate financial reports so they rely on reliable data and analytics provided by the ERP system.

RESULTS

Table 1: Distribution of sample

Company	Income	Cost	Expense	Profit	EVA
A	24,400	15,400	850	6,800	7,000
B	15,500	11,400	150	3,500	6,800
C	15,900	14,100	120	1,600	880
D	13,200	11,200	10	1,300	11,100
E	20,800	15,100	1,280	2,900	10,800
F	11,000	8,000	880	2,120	1,470
G	28,800	23,100	312	5,100	10,010
H	12,200	7,900	660	2,800	6,700
I	3,200	2,120	560	360	780
J	6,300	4,800	170	1,000	900
K	11,700	7,300	760	3,180	7,510
L	25,400	17,800	760	4,170	3,500
M	6,100	4,300	450	1,000	890
N	34,800	26,700	940	6,300	12,600

Table 2: Conditions of Table1

Index	Conditions
Income	If <=10000, Pass; If >10000 and <20000, Good; If >=20000, Great
Cost	If >=20000, Pass; If >10000 and <20000, Good; If <=10000, Great
Expense	If >=800, Pass; If >400 and <800, Good; If <=400, Great
Profit	If <=2000, Pass; If >2000 and <4000, Good; If >=4000, Great
EVA	If <=5000, Pass; If >5000 and <10000, Good; If >=10000, Great

Table 3: Cost comparison of Pre-installation and Post-installation ERP system

NO.	Cost Items	Pre-installation Cost	Post-installation Cost	Annual Savings
1	Computer maintenance	94,000	38,000	56,000
2	Computer Hardware	62,000	7,000	55,000
3	Computer Development	74,000	30,000	44,000
4	Logistics and Purchasing	525,000	210,000	315,000
5	Manufacturing Cost	729,000	120,000	609,000
6	Regional service Cost	1,260,000	840,000	420,000
7	Inventory Cost	299,000	117,000	182,000
	Total Annual Cost	3,043,000	1,362,000	1,681,000

DISCUSSION AND CONCLUISON

This study has inspected one calculation of Machine Learning, the Decision Tree, to exhibit that keen innovation can be joined with an ERP framework. An I-ERP framework can advance without anyone else and assist administrators with pursuing exact choices. At the point when an I-ERP framework is utilized in organization tasks, it can assume a conclusive part and backing the company's accomplishment of value models. With the utilization of an I-ERP framework, the nature of creation processes are improved, the speed of tasks is sped up, adaptability is expanded and costs diminished. An I-ERP framework can assist organizations with working on the quality of activities, satisfy market needs, increment effectiveness, and further develop item intensity. Despite the fact that I-ERP framework can upgrade organization tasks, there are related constraints to this review:

To start with, the examination test size is little. In this paper, just 14 preparation tests were utilized to lay out a choice tree. Nonetheless, the reason for delineating the utilization of a Decision Tree was not to be extensive, yet rather to feature its philosophy to show that clever innovation can be utilized with an ERP framework. Second, the exploration needs admittance to adequate sums of information to fabricate a convincing case. There are four models of value in organization activities.

In examining these models, the analysts couldn't get to adequate measures of information because of the modest number of firms really executing I-ERP. In this paper, the specialists consolidated wise innovation with ERP, and utilized the choice tree calculation to break down the chance of completing such combination. Later on, by consolidating the data in this paper and the more prominent accessibility of information, the scientists desire to add to a developing collection of information that reinforces the case for joining of keen innovation ERP. The aftereffects of this study establish the groundwork for additional investigation of the I-ERP framework.

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Cite this article as:
Hussein, A. T. "Study and Analysis of ERP and its Impact on the Performance of Employees." *Sarcouncil Journal of Engineering and Computer Sciences* 1.5 (2022): pp 6-9