

# Enterprise Resource Planning, Organizational Factors and Organizational Performance

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**Abstract**— This paper provides an overview of the most important variables, to investigate the proposed relationship, of Enterprise Resource Planning (ERP), Organizational Factor (OF) and Organizational Performance (OP). Moreover, the possibility of the potential impact on the relationship between as a moderating variable, can be ascertained. To reduce the broad debate about these factors and their impact on the Organizational Performance especially when the organization trying to adopt new technology such as Enterprise Resource Planning (ERP).

**Keywords**— *Enterprise Resource Planning, Organizational Factor, Organizational Performance*

## 1. Introduction

Organizations depend to the Organizational Factors (OF) which will include Top Management Support (TMS), and Organizational Culture (OC), because it has an effect on the success of the Organizational Performance (OP). Most time, the organization may face taking advantage of the technology and the introduction of some factors, including organizational factors [1], [2]. Several factors that have been explored in previous studies such as ERP system, but most have been carried out at the individual level, some of them revealed or examined some of the user aspects such as user involvement, user training, and education and user satisfaction [3],[4],[5]. From recent ERP studies, little is known about how OC and TMS may affect OP in the context of ERP system success adoption and implementation [6], [7].

## 2 Literature Review

### 2.1 Enterprise Resource Planning

As a brief overview of the information and technology that have emerged in most organizations around the world in late 1990 and early 2000, there was a development of the first generation of ERP systems in the era of information technology [8], [9]. Attention was given to most organizations in developed countries to increase their competitiveness [10]. A lot of money has been spent on the development of traditional systems that have not reached the goal

of providing the best products and services, to improve the development of infrastructure to be able to provide services more widely, and to be able to enjoy a reliable and advantageous system in the most efficient transfer [11]. The most critical variable is how to deal with human activity because that will determine the features of information systems in organizations for success in the adoption of new systems.

However modern systems in organizations, that operate in most developing countries are still slow in most cases, and not yet up to the level of the systems used in developed countries due to the financial cost of implementation of the advanced systems [12],[13]. Moreover, the adoption of the ERP system in Libyan organizations is not adequate although Libya has been able to enjoy wealth, and a spread of public sector. The financing of these projects is not a problem in most public organizations, whether productivity or services [14], [15].

Libya as one of the wealthiest countries in North Africa, did not attain enough use of technology in most public organizations be it manufacturing or services [16], [17]. As it was only at its infancy, there was little information about the ERP in Libya, or information technology in general. The current study tries to identify the study's organizational factors that affect the adoption of ERP and organizational performance. With growing concerns, some systems to manage payment-mail, online sales system, search for products, services, and information systems, the sale and purchase and pay for products and services electronically, have emerged.

The oil sector plays a significant role in the local development in Libya, and it will also have a role in the development of the international economy in the future. It is necessary to rebuild the infrastructure (physical and human capital and the acquisition technology can achieve the highest level of performance[18].

Several studies have been done on the information and technology systems, or specifically on the adoption and implementation of the systems.

Studies have also looked into several organizational factors; top management, Leadership orientation, organizational culture innovation, business performance, accounting quality, etc. [19], [20],[21].

With Libyan organizations starting to get interested in adopting information technology (IT) such as ERP system in different areas, the organizations in Libya are trying to improve their performance. The vital sectors of the state, including services and productive organizations are trying to provide the country a significant proportion of income. A lot of money and time are spent by these organizations to improve the areas of technology and the development of systems that allows organizations in the future to improve their performance it still an essential factor [22].

General Electricity Company (GEC) has various branches scattered in a number of geographical areas in Libya. It started to consider the ERP system in 2009-2010 to develop their information system, but the system was still not implemented yet. GEC has a lot of main branches that are widespread in Libya. There are 2122 ERP trainees in that company from 38480 total number of employees at all levels in the General Electricity Company [21].

On the other hand, there are several public organizations in Libya, interested to adopt ERP. The goal is to develop their services, including the railway company, also public services which provide the largest water and wastewater services. It is becoming increasingly difficult to overlook the ERP system in Libyan organizations. The empirical gap in the information technology systems in Libyan organizations of public sector which is related by the lack of accurate information, and provide service by the long procedures routine that is created challenges and obstacles which is can be classified into technological and organizational factors [23],[24].

## 2.2 Organizational Factors

Organizations depend to the OF which will include TMS, and OC, because it has an effect on the success of the OP. Most time, the organization may face taking advantage of the technology and the introduction of some factors, including organizational factors [1], [2].

Several factors that have been explored in previous studies such as ERP system, but most have been carried out at the individual level, some of them revealed or examined some of the user aspects such as user involvement, user training, and education and user satisfaction [3],[4],[5]. From recent ERP

studies, little is known about how OC and TMS may affect OP in the context of ERP system success adoption and implementation [6],[7].

In this context, the current study will delve into the OF and TF as a moderating variable. To reduce the broad debate about these factors and their impact on the OP especially when the organization trying to adopt new technology such as ERP system.

### 2.2.1 Top Management Support

Top management supports (TMS) the key indicators of the success of the adoption of new technology in organizations. In the same context, most previous studies have shown support of top management leading to the success of the adoption of information technology in many organizations [25], [26]. The relationship between top management to adopt ERP, and success implementation is a very critical, and without the support of top management to adopt new technology it may be likely to fail, especially for service providers in the public sectors [27]. On the other hand, [28], the concept of TMS is the initiatives that support individuals in understanding the development and adoption of information systems. In some areas there is a gap between employees and top management, this gap creates different perspectives on the prevention of the organizations from developing competitive advantages based on the ERP adoption [28]. TMS is required for the implementation of the success of ERP system, as well as effective employees in all departments where all of this provides motivation and achievement of organizational benefits and give credibility to the responsible departments for ERP system [29].

### 2.2.2 Organizational Culture

Organizational Culture (OC) is one of the important factors in the embedded organization vocabulary and administrative thought. In order to manage it, firstly, one should understand what the organizational culture is. The culture is defined by many researchers, that it is doing something with individuals may be unique and different style or similar even in the same organization with the others [30], [31],[32].

The OC can be defined as everything about people like thinking and behaviour and it represents the personality of the organization that directs relations between staff in most cases. It can be analysed at several levels, including the organization's work environment, and how to deal with technology [33], [34]. The OC is made up of the symbols, language, ideology, beliefs, rituals, and myths of an organization. Culture is universal and covers all areas of organizational life [35]. On the other hand, [36] considered culture to refer to the core values,

assumptions, interpretations, and approaches that characterize an organization. The OC may be defined as how people think which could directly affect the ways that it behaves, reflected in terms of behaviour and adoption of values. An assumption is a common understanding about the work of the organization [37]. The definition of OC is a “set of shared assumptions and understanding about organization functioning” [35]. Also, the theoretical argument defines the OC as complex values and norms that make up over a period of time in one organization system [38]. The organization must also be exercised to control specific effects on OC within a single organization [39].

### 2.3 Organizational Performance

The organizational performance (OP) whether industrial, service or productivity in the public, government, or private sector targets at increasing the financial investment. It has become necessary to know and assess its performance in specific fixed intervals to determine the extent to which the organization has achieved their objectives [40]. Although the OP had several different debates on several studies on different occasions, there is still needs to enrich this aspect, to considerably improving the organizations' services by ERP system [41]. OP is arguably the most critical topics in research of organizational studies, globally competitive environment in the current era is forcing organizations at all levels and industries to enhance their performance through the adoption and implementation of advanced strategies for endurance [42].

OP is the most critical topics in research of various studies. Because of its essential role in overall daily life, the organizations received the highest rates of return in the same sector. The OP is the direct result of strategic, effective management. That focuses on administrative organizations, in tangible or intangible services [43]. The OP in previous and current studies has different influencing factors in practice. Whether tangible or intangible aspects, and different performance is marked by every single organization among its competitors [44].

OP determines the most widely used dependent variable in organizational research today to determine the variables that produce differences in performance most frequently [45]. On the other hand, OP determines, whether every manager is accountable for every success. Focus should be on factors that can affect the organization to achieve the best results [46].

However, the OP reflects the extent to achieve the objective in different departments and divisions. With the involvement of the directors and department heads and different departments, even individuals in organizations they can all determine

the level of performance. It occupies a large concentration of OP in the literature for more than thirty years ago [47], [48]. The OP has been defined by many scholars, and researchers in different ways. The actual performance of the organization after inputs comparison by outputs reflects the organization, customer needs, and expectations of the service provided [49]. Performance measurement metrics are used on a comprehensive scale by most of the organizations in various industrial services to evaluate the business process or other outputs [50].

According to [51] the concept of OP is very common and widespread in much of the academic literature. However, the definition is sometimes tricky because it has many different meanings. It cannot find the universally shared definition of an agreement of all researchers. There is a different angle to the definition the OP according to the nature of the organizations itself and the purpose which is looking for.

In the '50s the OP has been seen to function as a social system that achieved the objectives of the organization [52]. Later in the 60s and 70s, organizations have begun to explore new ways. Performance was assessed, and this included the ability of the organization to take advantage and exploit their environment. The use of limited resources was also optimised [53].

Most of them supported the idea of organizational theories that followed the idea. The organization that achieves the goals using control is an efficient system [54], [55]. However, in the past 80s and 90s changed a little where the concept of organizational goals became more complicated than was initially recognized. Previously, the achieving goals (effectively) and use as little as possible resources (efficiency) which is focused on the performance of the work and customer's satisfaction it was one of the targets of the organization. In today organization it is changed to how to improve the performance by new technology [56], [57], [58], [59]. That said, both [59], determined that the OP mean financial and non-financial indicators that would provide clear and specific information with regard to the associated objectives and results.

On the other hand [60], [61] the OP is defined as the dynamic performance of referee and interpret outcomes. It shows through a causal model that describes; how it can be affected by most measures from the future results. That is the view from outside the organization differs from the inside of the organization. It is essential to know the most critical elements that characterize each side – they are responsible for the associated performance and reflection on the organization in general.

At present, [62] claimed that there is a different outlook on OP, means effectiveness, efficiency, and quality, economy and standard and consistency of behaviour measures. There are also a set of

financial and non-financial indicators, aiming to achieve results and goals planned by the organization [63].

However, [64] stated that organizational performance refers to the ability of each organization to achieve its objectives regarding the quality of service provided. To the beneficiaries and high profit makers, a significant share in the rival market, and the results of high-income money in a stock market, enable the organization to survive. To explain further, predefined strategy means working from different systems and strong foundations that can reach the featured performer. Furthermore, seven areas of OP are identified; effectiveness, productivity, quality, customer satisfaction, stakeholders, efficiency, and innovation. That has become customary in most colleges and universities, because it is interconnected with the beginning of planning and strategy performance, evaluation, and organizational development. [65], stated that the OP is the standard by which the index is evaluated. As discussed above, performance measurement is one of the threads that are often discussed. It is necessary to understand and clarify the meaning to be more pronounced. However, the performance measurement work is described, where it indicates that quantitative measurement, is linked directly to work [66], [67].

### 3 Discussion

This paper provides an overview of the most important variables, to investigate the proposed relationship, of ERP system and OP. Moreover, the possibility of the potential impact on the relationship between as a moderating variable, can be ascertained. Because the organization's factors nowadays are more disorder and has become a source of concern requiring awareness of all the variables, and the actual readiness when thinking about adopting the modern technology. Also, the proposed relationship between the main existing variables was discussed. This aims to achieve the objectives of the organization, where the adoption of effective practices increases the value of the performance as a whole.

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