Global Scientific JOURNALS
GSJ: Volume 12, Issue 3, March 2024, Online: ISSN 2320-9186
www.globalscientificjournal.com

Assessment of the Impact of ERP System Deployment on Employee Productivity, Reporting Quality, and Donor Satisfaction: A Case of Selected NGOs in Nigeria.

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Abstract

The purpose of this research is to assess the impact of Enterprise Resource Planning (ERP) system deployment on employees' productivity, reporting quality and donors' satisfaction among selected non-governmental organizations (NGOs) in Nigeria. Data were collected using questionnaires from 70 employees working in the selected NGOs. The data collected were analyzed using descriptive statistics and structural equation model [SEM] to test the study hypotheses using AMOS 16.0. The results of this study showed that there is a significant impact of ERP deployment on employees' productivity, reporting quality and donors' satisfaction. To enhance productivity, reporting quality, and donors' satisfaction, it is recommended that organizations especially in the non governmental sector shall appropriately deploy ERP as a key instrument for both employee productivity enhancement and donor satisfaction. And prior to

deployment, there is a need for employees to undergo a training course that identifies and explains all the necessary changes that will meet the organisation's reporting demand.

Keywords: ERP Deployment, Employees' Productivity, Report Quality, Donor Satisfaction

1.0 Introduction

Globally, Enterprise Resource Planning System is one of the most responsive computer technology software that results in enhanced performance of organizations across a wide variety of financial metrics (Hitt etal., 2002). In recent time, businesses, non-governmental organizations (NGOs), and society at large have undergone a revolution due to technological advancement, which is one of the driving forces behind globalization (Ali, 2018). Globalization, fueled by information technology, has resulted in ever-increasing complexity, dynamism, and snowballing competitiveness, which has a significant impact on business process modifications via the deployment of integrated business applications (Ajide etal., 2021). One of the greatest options for the activities is enterprise resource planning (ERP), which ensures seamless integration of all organizational operational systems. The supply of real-time operational and financial data access by the ERP system simplifies management structure and results in the formation of a more adaptive, democratic, and flatter organization. In today's world, International, and local nongovernmental organizations (NGOs) have developed and examined the real reasons and forces behind creating effective organizational strategies rather than treating them as an afterthought that will ensure high level of satisfaction. According to Alshubiri, Ahsan, and Mohamed (2019), the application aids organizations in streamlining corporate operations, streamlining information flow, and monitoring interactions between various departments. Additionally, by combining data and business processes into a single system, the software makes management and coordination simpler. Additionally, the system is quite helpful for collecting and transferring data between an organization's many online apps to guarantee management of

various business processes via dashboards and KPIs. No wonder, large companies worldwide have opted for integrating their business processes and functions in one central database to allow information to be accessed from many different organizational positions and enabling the possibility of enhancing quality reporting, donor satisfaction, and faster decision making (Budiman, 2021).

Today's business operates in a rival and competitive environment. Therefore, several organizations have adopted technologies to their advantage to maintain success and competitiveness. However, it is worth noting that a lack of alignment between IT investments and business strategy is a fundamental reason why most organizations fail to fully realize the benefits of large-scale systems like as ERP systems (Reich & Benbasat, 2021). This can be exacerbated if precise objectives that help synchronize activities are not clearly stated in order to analyses why ERP is introduced. That was why scholars like Molla and Bhalla (2019) noted that there are still errors and challenges associated with the adoption of ERP systems, despite the expansion of their use in developing nations. Similar to Kutswa (2020), who identified significant obstacles to implementing ERP systems in businesses, these issues include user resistance, a lack of support from top management, poor communication, insufficient resource allocation, organizational culture, high implementation costs, a lack of training, and incentives for system champions. ERP systems are expensive, enormous, and sophisticated systems that require careful planning and execution for effective adoption, according to Munyendo (2018) in his own study. He connected the ERP system to Rogers' innovation diffusion theory. A knowledge gap exists between the use of ERPs and organizational performance, nevertheless. The desire to understand how the deployment of an ERP system affects employees’ productivity, reporting quality, and donor satisfaction served as the driving force behind this research. Most

scholars have focused on the barriers to adopting ERP, its drivers, and its effectiveness, with little emphasis on how ERP deployment relates to these three important areas.

1.1 Objectives of the Study

The thrust of this study is to access the impact of ERP deployment on employee productivity, reporting quality and donor satisfaction in selected NGOs in Nigeria. To achieve this aim, the study seeks to evaluate the impact of an ERP system on the overall efficiency and effectiveness of employee productivity, reporting quality, and donor satisfaction in nongovernmental organizations (NGOs).

1.2 Research Questions

The study is intended to provide answers to the research questions below to achieve the above stated objectives.

How does ERP deployment affect the overall efficiency and effectiveness of employee productivity, reporting quality, and donor satisfaction in nongovernmental organizations (NGOs).

1.3 Hypothesis

To provide answers to the above research question, the following null hypotheses will be tested.

i. **H_0:** ERP deployment do not have significant impact on employee productivity in Non-Governmental Organizations.
ii. **H_0:** ERP deployment does not have significant impact on reporting quality in Non-Governmental Organizations.

iii. **H_0:** ERP deployment does not have significant impact on donor satisfaction in Non-Governmental Organizations.

2.0: Literature Review and Theoretical Framework

Organizations nowadays have the problem of integrating their various types of technologies and ensuring seamless information exchange between these platforms. Implementing enterprise applications is one approach to solving this issue. As a result, organizations can become more adaptable and productive (Laudon & Laudon, 2021). These systems allow organizations to integrate, execute, and coordinate business processes across the entire organization, including all levels of management. Organizations utilize ERP systems to combine operational business operations that have been established using several software systems into a single software system. Using a central data repository, this system makes it easier for diverse parts of an organization to utilize information effectively. The system's design also considers Programme integration across several activities, such as, accounting, regular reporting, and processing. Numerous business applications can make use of a common database that acts as an integrating mechanism (Laudon & Laudon, 2021).

An organization's operational effectiveness or capacity to successfully achieve institutional goals determines its future performance. Several characteristics, including business model productivity, efficiency, quality reporting, and client satisfaction, are included in organizational outcomes (Karimi, 2020). The level of competence a management team in an organization possesses when it comes to putting strategy into action greatly influences its effectiveness, with the essence of leadership being a conditional understanding between the manager and subordinates (Punia, 2013). According to AlMuhayfith & Shaiti (2020), a survey of businesses

using ERP systems and their impact on management practices reveals variations in some of these benefits. Among the most often rated perceived benefits are enhanced flexibility in information creation, improved report quality, increased integration of accounting programmes, and improved judgements based on timely and reliable accounting information. The effectiveness of ERP systems to deliver value and competitive advantages is being questioned by management in numerous organizations (Meroka, 2021). Organizations' main motivation is to accomplish their objectives and increase their level of success. ERP systems are often utilized to boost organization efficiency since they are viewed by many as a reality (Barna & Igna, 2021). Research has revealed that there have been times when implementations have fallen short and have had a negative impact on organizational performance (Serhan & El Hajj, 2019). On the other hand, ERP systems are substantial and complex with a range of implementation results. Effectiveness, on the other hand, has many facets and is challenging to measure. It covers the structural, operational, human resource, and employee productivity aspects of an organization. Research indicates that evaluating the benefits and dangers of ERP remains a top strategic goal for many organizations, including NGOs (Karimi, 2017). Adopters of ERP are seeking a variety of benefits, such as enhanced stakeholder performance, productivity gains, inventory optimization, donor satisfaction, and data integration capabilities.

The measurement of employee productivity is crucial for an organization, which makes it valuable to receive feedback and take appropriate actions regarding employees management (Abdelwahed & Aldoghan, 2023). To meet this need, IT software aids in the preparation of reports, the organization of feedback sessions, and the implementation of corrective measures. Since getting the most out of the people they oversee is the main goal of their jobs, managers and supervisors should pay special attention to this issue. Employees are the key to any industrial industry's success, according to Caruso (2009), the founder of David Caruso & Associates Inc..

In today's cost-competitive world, the emphasis is on accomplishing tasks through increasing employee productivity. The use of integrated technology, such as an enterprise resource planning system (ERP), can increase organisation's productivity through empowering employees by providing them with timely information. According to Nurmilaakso (2009), one of the reasons for investing in ICT solutions is to increase labor productivity, with the ERP system having a favourable impact on labor productivity. However, because the ERP system is always changing and getting updates, employees' performance may decrease, which may make them resistant to change management. According to Nikolaou and Bhattacharya (2019), an organization may occasionally fail due to an incorrect or frequent software system version update. If the human resource management functions when handled through electronic way, it gives access to the employees related to the information of any kind, but one module can affect the other module during frequent update (Hoch & Dulebohn, 2013).

Up until now, reporting quality has often been seen as a critical strategic element of competitive advantage and the improvement of service and product quality in organizations (Li et al., 2019). Many scholars have remarked that despite ERP's many benefits, there are also some drawbacks (Šimović etal., 2020 & Zieliński, R. etal., 2020). No wonder that Lodhia, Allam, and Lymer (2019) asserted in their research that organizations' lack of interest in using the internet for financial reporting stems from their mistrust of it and their lack of IT expertise. In their research, Kim et al. (2013) examined the connection between the adoption of ERP systems and the delay in releasing the audit report. They concluded that initial ERP adoption often has a negative association with audit report delay, but the significance of this link only becomes apparent in the fourth and fifth year of ERP implementation.

The Technology Acceptance Model, developed by Fed Davis in 1989, is the theory that underpins the study. The usefulness and simplicity of the technology indicates how users will

adopt and how they would use it (Surendran, 2019). Technology is routinely employed, according to the proponents of this notion, to improve and facilitate employees' tasks, provide improved output, and guarantee better performance and productivity. However, once employees have gotten used to a certain manner of doing things, they frequently resist change. The theory's goal is to assist determine whether the organization's workforce will accept the automation and, if not, what changes to make to the system to ensure that it receives widespread user approval (Rahimi, Nadr, Afshar, & Timpka, 2018). The user's perception of a technology's usefulness determines how much work will need to be expended for it to enhance its performance. TAM has distinguished itself by investigating and analyzing the factors influencing user acceptance of modern technologies. This has helped several organizations improve their performance by promoting the use and acceptance of technology and providing individual differences, societal inspirations, beliefs, attitudes, and situational influences as features that support an aim to use technology and encourage the ability to accept or reject it. TAM predicts desire and motivation to perform a variety of skills by ensuring that organizations run smoothly and efficiently. Many studies have demonstrated how ERPs have increased employee efficiency and productivity. This is because the theory is based on behaviors intention. This theory will be utilized in this study to understand how employees in organizations have reacted to the change in technology and how it will affect their productivity, quality reporting by different levels of management in ensuring that there are sufficient internal controls that will foster donors' satisfaction.

3.0 Methods

This study adopted a quantitative survey approach. A total of 70 questionnaires were distributed to employees (actual users of ERP systems) and management staff working in four selected NGOs in Nigeria (Creative Associate International, Family Health International, SFH and Malaria Consortium) in Nigeria. Due to financial and time constraint, non-probabilistic

purposive sampling technique was employed to select respondents. The questionnaires were used to gather data from the chosen sample about demographic traits, ERP deployment, employee productivity, reporting quality, and donor satisfaction.. Questionnaire was developed that was segregated into different segment for supervisors/managers and subordinates. The productivity was the only study variable that wasn't measured from the perspective of the subordinates. From the managers' perspective, the productivity variable was assessed. From the managements' perspective, reporting quality and donors' satisfaction was assessed. To administer and gather data from respondents, online data collection method using Kobotoolbox was designed and deployed to collect data from the respondent. Univariate descriptive statistics with means, graphs, and standard deviations as well as parsons' correlations between the study variables were analyzed as two different forms of data analysis. To evaluate the direct correlations and to test the study hypothesis between the study variables, multivariate structural equation modeling (SEM) was employed. To carry out these studies, AMOS version 16.0 was employed.

4.0 Results:

4.1 Socio-Demographic Profile

Table 1: Socio Demographic Characteristics

Variables	Categories	Frequencies (n)	Percent (%)
Sex	Male	49	70.0
	Female	21	30.0
Age Group	20-35	15	21.4
	36-45	50	71.4
	46+	5	7.1
Years of using ERP	<1	14	20.0
	1-3	50	71.4
	4+	6	8.6

Table 1 shows the demographic variables by gender, age group, and years of ERP use. According to the table, 70% of the responses were men. 71.4% are between the ages of 36 and 45, with the majority (71.4%) claiming to have been using ERP for roughly 3 years.

4.2 Descriptive Statistics

Table 2 below contains a summary of means, standard deviations, and pairwise correlation coefficients for all study variables. All measures exhibited suitable reliability coefficients (alpha coefficients varied between 0.782 and 0.855).

Table 2. Descriptive statistics, alpha coefficients and intercorrelations between the study's variables

	Mean	Standard Deviation	Alpha	1	2	3
Employee Productivity	4.39	.446	.845			
Reporting Quality	4.28	.415	.782	427**		
Donors' Satisfaction	4.33	0.42	.855	.541**	.534**	

**P<0.05

Descriptive statistics for all variables are presented in table 2 including mean and standard deviation scores. The results of this study accordingly reveals that the employees' have agreed that their organizations have successfully deployed the ERP systems because the mean of the employee's productivity, reporting quality and donors' satisfaction were 4.39, 4.28 and 4.33 respectively. Specifically, the results in table 2 indicated that there was a positive relationship between the ERP deployment and the employees' productivity, reporting quality and donors' satisfaction. The values ranged from (0.427 to 0.534).

4.3 Hypothesis Testing

Structural Equation Modelling was used to test the 3 hypotheses of whether ERP deployment significantly influences employees' productivity, quality reporting, and donor satisfaction. In addition, ERP deployment have explained each independent variable, 86% for employment productivity, reporting quality 73% and donors' satisfaction 66%.

Table 3. SEM analysis for the study's variables

	Dependent	Independent[Ma1] [US2]	Coefficient	Critical Ratio [CR]	Decision
Paths	Employee Productivity	ERP Deployment	4.622	3.998	Significant
	Reporting Quality	ERP Deployment	3.995	4.229	Significant
	Donor's Satisfaction	ERP Deployment	5.182	4.043	Significant
	R2 of Employees' productivity=0.86 R2 of Quality Reporting=0.73 R2 of Donors' Satisfaction=0.66				

*NB: *: C.R. (critical ratio) .1.96; using a significant level of 5%, critical ratios that exceed 1.96 would be considered significant.*

4.4 Discussion

The objective of this study was to assess the impact of ERP deployment on employees' productivity, reporting quality, and donors' satisfaction. The results showed the SEM of the construct of this study. Table 3 specifically indicated that there was a significant impact of the construct 'ERP deployment' on employees' productivity, quality reporting, and donors' satisfaction respectively. These results were consistent with the literature that explains such a positive relationship Velcu (2020). In their research study, Kumar, Maheshwari, and Kumar (2019) listed a number of ways that the ERP deployment, particularly after the first ERP implementation, could have a detrimental impact on employees' productivity. Some of these factors include poor user training, a lack of support materials, a high user turnover rate, and users who took a long time to adapt to the new procedures and systems.

5.0. Conclusion and Recommendations

The results of this study showed the impact of ERP deployment on employees' productivity, quality reporting, and donors' satisfaction. As expected, organizational influence had a direct impact on the deployment of ERP, and this was confirmed by related studies (Balić, A., 2022). Additionally, the satisfaction antecedent had a direct impact on both the quality of reporting and

donors' satisfaction. Numerous suggestions and managerial implications might be made based on the discussion of this study. Employees who use the ERP systems should be involved throughout the ERP deployment life cycle in order to increase user satisfaction, which is one of the concepts of ERP implementations. Employees should, for instance, be allowed to choose and alter the proper format for reports. It would also be highly practical to build a training course that identifies and explains all the necessary changes that would occur to the business processes inside the organization. This is because employees would need time to adapt to the changes imposed by the new technology. Additionally, even if ERP systems standardize internal business procedures, quick study habits and technologically savvy workers must be given the chance to excel and be rewarded for their efforts. Therefore, managers should provide these workers with the proper methods and processes for incentives and awards to assist and encourage satisfactory performance. However, as demonstrated by Dezdar & Sulaiman (2011), little ERP research has been done in underdeveloped nations. Therefore, more research and comparison studies (in other developing countries) are needed to investigate and uncover all the elements related to the installation of ERP systems in developing nations. Further, researchers can also look into using qualitative data to explore a deeper understanding the determinants of the dependent variables of this study such as work output, efficiency for in measuring employee productivity, accuracy, completeness, and timeliness in measuring reporting quality, and feedback mechanisms in measuring donor satisfaction.

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