

THE PROCESS OF DIGITALIZATION OF AN ACCOUNTING ORGANIZATION USING ERP SYSTEMS

Laura-Eugenia-Lavinia BARN¹ ORCID: 0000-0003-2068-4422

Bogdan-Ștefan IONESCU² ORCID: 0000-0003-0021-2938

Abstract: *In this paper, the authors analyzed the digitalization process of an organization that provides accounting services using ERP systems. Through this paper, the authors want to bring a significant amount of new information on the digitalization process using ERP systems. The research method is based on the selection of the most relevant articles dealing with the subject of this paper, collecting data and information about the digitalization process. As a result of their studies, the authors consider that ERP systems are the most suitable systems for the digitalization process of an accounting organization.*

Keywords: *digitalization, ERP systems, accounting, organization, process*

JEL Classification: M15, M40, M41, M42

Introduction

ERP systems have numerous modules that help an organization that provides accounting services to integrate almost all activities (accounting, finance, HR, management, etc.). However, the implementation of ERP systems is quite expensive and most of the time, these ERP systems are installed by large organizations because they have greater financial possibilities (study conducted by Market Intelligence and Consulting Institute, 2009 cited by Cheng et al, 2014).

The reason why organizations want to implement these ERP systems depends on the possibility of meeting the organization's objectives in real time (Galani et al., 2010).

Another reason behind the implementation of ERP systems is the efficiency in processing various accounting documents (invoices, bank statements, expense reports, etc.), but also the fact that it allows direct data import which significantly reduces the processing time of a large volume of accounting data.

According to Hietala și Päivärinta (2021), ERP systems positively influence the performance and strategy of an accounting organization because so that the data are much more accurate and complete after processing with these systems.

The authors Rodriguez and Spraakman (2012) observed that after using ERP systems, employees of an accounting organization are "less involved in the process of manual data processing", they are more concerned with preparing monthly, quarterly or annual statements and monthly or quarterly reports based on the analysis of data resulting from the processing of accounting data with ERP systems.

In the next section of the article, the authors conducted a systematic review where they identified various concepts specific to the topic of the paper. Based on this, they were able to establish the research method and analyze the collected data. In the end, the authors structured the main conclusions of the article.

¹PhD Student, Bucharest University of Economic Studies, E-mail: barnalaura15@stud.ase.ro

²PhD Prof., Bucharest University of Economic Studies, E-mail: bogdan.ionescu@cig.ase.ro

DOI: 10.29302/oeconomica.2021.23.2.1

Review of the specialized literature

ERP systems are most often defined in the literature as "complex applications" (Spathis and Ananiadis, 2005) with a modular structure that covers most of the departments of an organization (Hassan and Mouakket, 2016).

The possibility to store the processed information in a database common to all departments of the organization, offers employees the opportunity to easily access the accounting data needed to prepare reports or financial statements, thus streamlining the communication of information between departments of the organization.

The authors Amado and Belfo (2021) observed that the level of implementation of ERP systems has increased recently among organizations that provide accounting services due to the many advantages offered by these systems. Even though the process of implementing these systems is quite long and difficult due to the large number of stages, most accounting organizations resort to implementing these systems.

The author Jung-Li et al. (2017) identified 3 phases in the process of implementing ERP systems which are presented in (fig. no. 1):

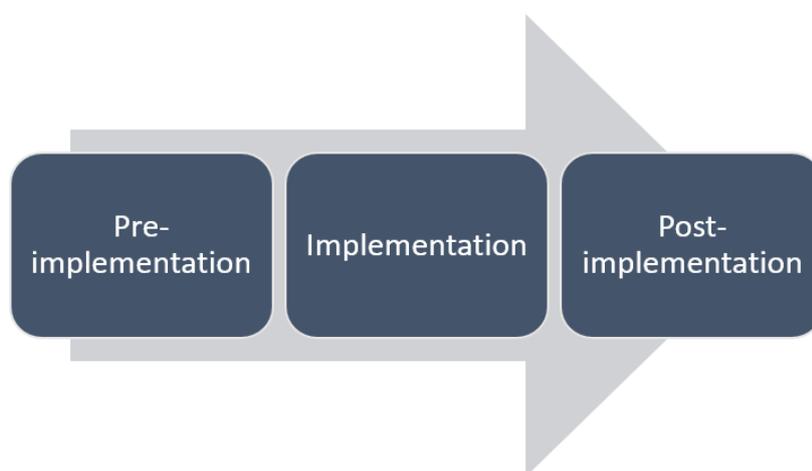


Fig. no. 1 Implementation phases

Source: Author's creation

For the successful implementation to take place, the most essential steps are decision, selection and planning. Before starting the implementation process, a well-founded documentation is necessary so that the requirements, objectives and needs of the organization can be identified. After analyzing the documentation the decision can be made regarding the appropriate ERP system that will be implemented and the team that will handle the implementation.

In the actual implementation stage, the modules of the ERP systems are implemented one by one so that this can be done successfully.

If the implementation of ERP systems has been successful, it will move to the testing and training of employees within the organization stages (Chofreh et al, 2011). If the implementation of ERP systems encountered errors / difficulties, we try to identify the problems that determined their occurrence.

Of course, after the completion of the ERP system implementation process, the maintenance periods will be established, during which the periodic updating of the functions and the verification of the correctness of the data processing will be performed.

Following the digitalization process of an accounting organization, its employees will be able to carry out other activities than the usual ones such as (fig. no. 2):



Fig. no. 2 The role of accountants in a digitalized organization

Source: Author's creation

Rodriguez and Spraakman (2012) observed that the implementation of ERP systems leads to the elimination of manual workloads by providing “support in the processing of daily transactions, support in internal decision-making and fulfillment of obligations related to administration (legal obligations)” (Spathis and Constantinides, 2004).

The main benefits of implementing ERP systems observed by users of accounting organizations are:

- reducing redundancies
- data quality
- improvements in the quality of reports
- fast and accurate financial reporting
- reducing costs for overtime with labour
- faster financial closures

Research methods

The objective of the paper was to observe the process of digitalization of an organization that provides accounting services.

The research method used was the selection of the most relevant articles for the topic of the paper from different databases in which we identified aspects related to the digitalization process using ERP systems.

The authors formulate some research questions:

1. What does it mean to implement ERP systems in an organization that provides accounting services?
2. What are the benefits of ERP systems in an accounting organization?
3. What digital competencies should the employees of the organization that provides accounting services have?

Results and discussions

In this section, the authors presented the information they were able to identify in the other articles for the topic of the article.

1. *What does it mean to implement ERP systems in an organization that provides accounting services?*

Most of the times, the implementation of an ERP system within an accounting organization involves the redesign of the activities performed by that organization (information flow), but also of the previously used systems. This requires rigorous documentation by the implementation team, so as to identify the risks to which the organization may be subjected during the implementation process, but also the factors that could lead to the failure of ERP implementation.

The reason why this documentation should be done would be the fact that the average duration of implementation of an ERP system is between 6 months and 2-3 years.

Managers make the decision to implement ERP systems because they find that the volume of activities within an accounting organization is very large and consider that once implemented the ERP system will streamline the activity of the organization. However, after the implementation of the ERP system, the organization must go through a process of adapting all activities to the new system.

2. What are the benefits of ERP systems in an accounting organization?

The main benefits identified by the users of financial-accounting information are presented in (fig. no. 3):

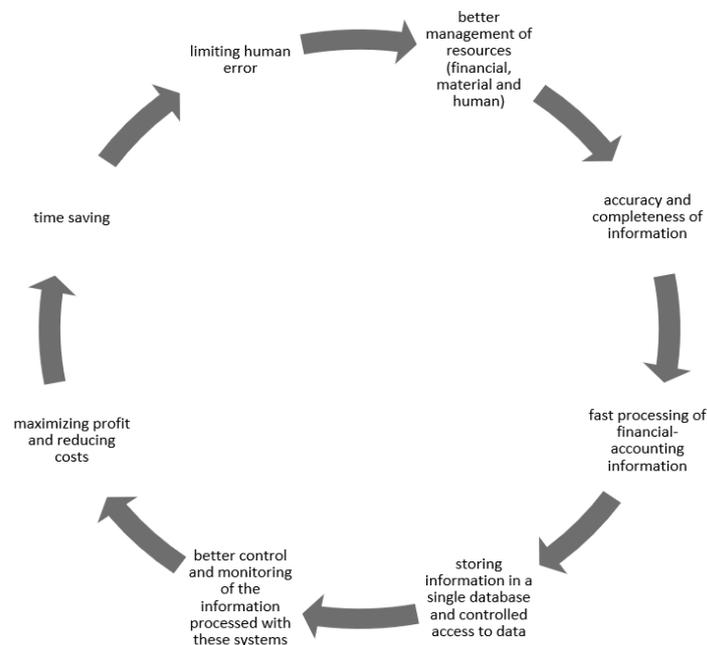


Fig. no. 3 Benefits of ERP system

Source: Author's creation

3. What digital competencies should the employees of the organization that provides accounting services have?

Accountants who are hired or will be hired in the future will need to have a solid digital knowledge, so as to adapt as easily as possible to the information systems implemented in the organization, but also to the periodic changes of the IT field.

It is assumed that in the future, accountants will focus more on consulting, data analysis and strategic planning and will no longer focus on the processing of accounting documents (Deloitte, 2020). According to the study conducted by Deloitte Digital Transformation (2020), it was found that organizations that have a high degree of digitalization, have higher economic benefits than the industry average so that global annual revenues are much higher than organizations with a low level of digitalization.

Conclusions

The digitalization process is increasingly evolving from one period to another, becoming a necessity in business due to the speed with which the world is developing. Even if the digitalization process is a very complex one, task automation is increasingly necessary as a result of the expansion of the workload provided by employees.

We must take into account the many benefits that the implementation of ERP systems offers, both material (low resource consumption due to efficient resource management) and financial (high global annual revenues).

In conclusion, the authors believe that the accounting organizations should keep up with the digitalization process so that the activities carried out within the organization are carried out as efficiently and correctly as possible.

References

1. Amado, A., Belfo, F.P., 2021. *Maintenance and support model within the ERP Systems lifecycle: Action research in an implementer company*, International Conference on Project MANAGEMENT / HCist - International Conference on Health and Social Care Information Systems and Technologies 2020, published in Procedia Computer Science, no. 181, pp. 580 – 588.
2. Chang, S.I., Yen, D.C., Chang, I.C., Jan, D., 2014. *Internal control framework for a compliant ERP system*, Information & Management, no. 51, pp. 187-205.
3. Chofreh, A.G., Goni, F.A., Jofreh, M.G., 2011. *Enterprise Resource Planning (ERP) Implementation Process: Project Management Perspective*, Advanced Materials Research Vol. 338, pp. 152-155.
4. Deloitte, 2020. *Transformarea digitală: un proces cu avantaje nu doar financiare*, available at: <https://www2.deloitte.com/ro/ro/pages/strategy/articles/transformarea-digitala--un-proces-cu-avantaje-nu-doar-financiare.html>, accessed on November 15, 2021.
5. Deloitte Digital Transformation, 2020. *Uncovering the connection between digital maturity and financial performance*, available at: <https://www2.deloitte.com/us/en/insights/topics/digital-transformation/digital-transformation-survey.html/#endnote-sup-29>, accessed on November 16, 2021.
6. Galani, D., Gravas, E., Stavropoulos, A., 2010. *The Impact of ERP Systems on Accounting Processes*, International Journal of Economics and Management Engineering, vol. 4, no. 6, pp. 774-779.
7. Hassan, M.K., Mouakket, S., 2016. *ERP and organizational change. A case study examining the implementation of accounting modules*, International Journal of Organizational Analysis, vol. 24, no. 3, pp. 487-515, DOI: 10.1108/IJOA-05-2014-0760.
8. Hietala, H., Päivärinta, T., 2021. *Benefits Realisation in Post-Implementation Development of ERP Systems: A Case Study*, CENTERIS Conference 2020, published in Procedia Computer Science, no. 181, pp. 419-426.
9. Jung-Li, H., Chang, S.I., Yen, D.C., 2017. *Investigating CSFs for the life cycle of ERP system from the perspective of IT governance*, Computer Standards & Interfaces, no. 50, pp. 269–279.
10. Rodriguez, C.S., Spraakman, G., 2012. *ERP systems and management accounting: a multiple case study*, Qualitative Research in Accounting & Management, vol. 9, no. 4, pp. 398-414, DOI: 10.1108/11766091211282689.
11. Spathis, C., Ananiadis, J., 2005. *Assessing the benefits of using an enterprise system in accounting information and management*, The Journal of Enterprise Information Management, vol. 18, no. 2, pp. 195-210.