



Libyan International Medical University
Faculty of Business Administration



Cloud Enterprise Resource Planning adoption

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INTRODUCTION



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INTRODUCTION

- Enterprise Resource Planning (ERP) systems are information systems that offer complete integration of all important business operations. They automatically update new data into a single data repository that is accessible to all business functions. This enables coordination of all business departments (e.g., manufacturing, purchasing, accounting, etc.), which adds value to the business process operations.



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INTRODUCTION CONT.

A new technology known as cloud computing refers to service applications that are delivered over the Internet via the software and hardware in the data center that provides those services. Companies use the cloud as it allows them to surpass all the barriers and difficulties related to data exchange mainly with interorganizational systems.

The cloud-based services have the flexibility that played an essential role in moving the ERP systems' solutions into the cloud platforms. An example of this flexibility is the four available deployment models, namely, private, public, hybrid and community based.



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The historical development of Cloud ERP systems

The first computerized business systems emerged in the 1960s, known as Material Requirements Planning (MRP) systems.

In the 1990s, ERP systems became web-based, allowing for remote access and collaboration. This development paved the way for cloud ERP.

In the 2000s, cloud computing emerged as a viable technology for hosting software applications, including ERP systems.

In recent years, the adoption of cloud ERP systems has been increasing, as organizations seek to improve their operational efficiency and reduce IT costs.

According to a report by Gartner, the worldwide public cloud services market is projected to grow 23.1% in 2021, reaching a total of \$332.3 billion.

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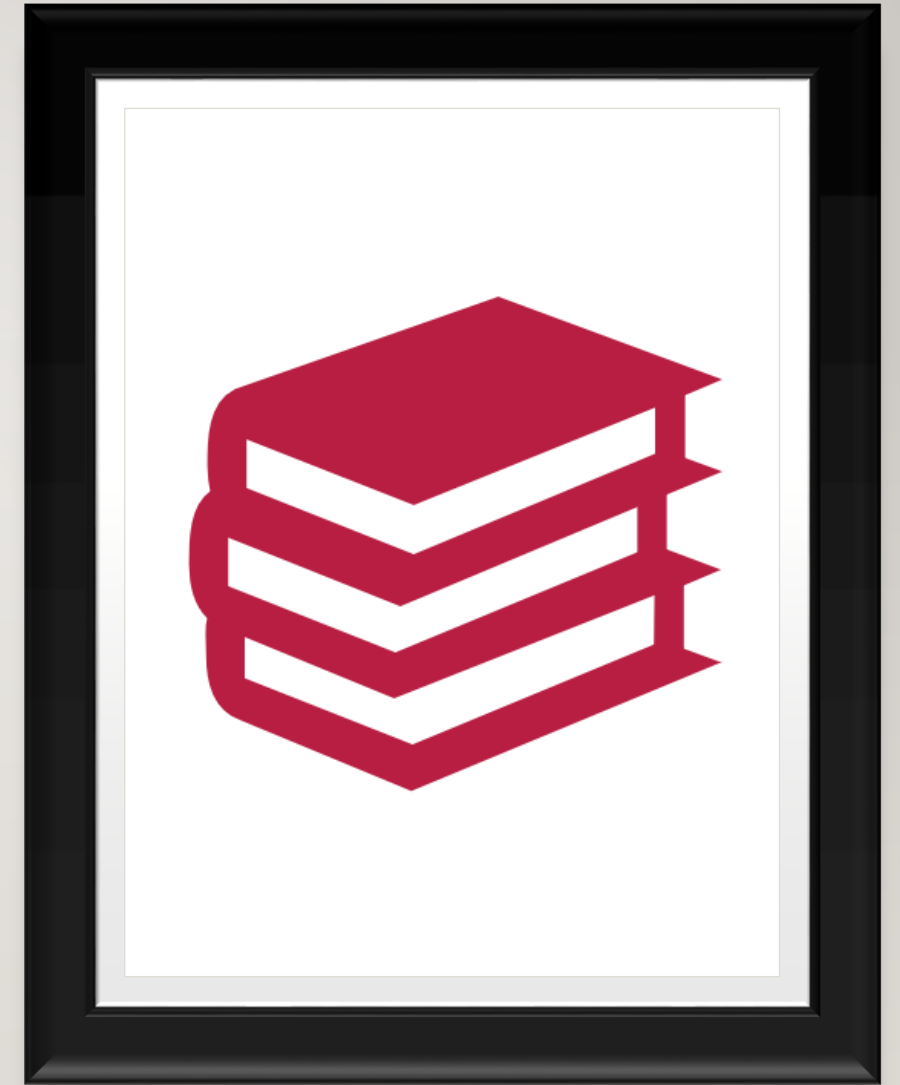
MATERIAL AND METHODS

The methodology used to conduct this study was qualitative using secondary data. The information was gathered from a few chosen journal articles. The information was chosen using a two-stage search process: (a) initial search and paper selection; and (b) selection and acceptance of papers. With "Enterprise Resource Planning" and "Cloud ERP" as keyword searches in paper abstracts, from (2012–2023) as publication dates and "English" as the selected language of the chosen articles. Advanced search was established for Google Scholar and ResearchGate's search engine databases.



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LITERATURE REVIEW



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LITERATURE REVIEW

Following a review of available literature, it was found that the published journal papers generally focused on five key topics. For clarity and consistency, the subject literature review is laid out around those topics as follows.

- Enterprise resource planning (ERP)
- Cloud Enterprise Resource Planning (Cloud ERP)
- Cloud ERP critical success factors
- Cloud ERP adoption in SMEs
- Cloud ERP implementation in developing countries.

10 ENTERPRISE RESOURCE PLANNING (ERP)

- It cannot be denied that this era is a digital era where everything is connected to the internet. The speed or connection to the internet is becoming an important matter. Besides from that, the ERP ease of implementation is needed. The solution to make ERP remain relevant in this digital era is to implement a system called “cloud”. the interest of Cloud Enterprise Resource Planning is still a growing interest. (Aulia et al., 2019)
- The findings of a study that was done in the UAE by Nizar Mohammad Alsharari ET AL (2020) provide an evidence that using the Cloud EPR system, as alternative to on premise traditional ERP system, is constructive to the success of organizations and improve the quality of their decision-making process. The findings also reveal that effectiveness of implementing Cloud ERP is reliable on the provider’s professionalism; hence resulting in issues related to minimize organizational independence. (Alsharari et al., 2020)

|| CLOUD ENTERPRISE RESOURCE PLANNING (CLOUD ERP)

- The market share of C-ERP systems had more than doubled, indicating that C-ERP is becoming more popular and replacing legacy ERP system. the infrastructure and human resources required to manage and use the cloud system affect financial performance. C-ERP services are cost-effective, efficient, adaptable, and scalable. This, in turn, will improve the firm performance in general, and specifically, financial performance. (Hamad et al., 2022)
- in-cloud systems are faster to implement, less costly and easier to use and scalable. In-house system, compared with in-cloud, gives organizations more control and hence many organizations deem them more secure. The comparative case study indicates that the in-cloud ERP systems have an effect on several aspects of a company, e.g., cost and time savings. In addition, the in-cloud system is more user-friendly and interactive, encouraging users or employees to work more efficiently than the ones working on the in-house system. (Elragal & El Kommos, 2020)

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CLOUD ERP CRITICAL SUCCESS FACTORS

- In the year 2016 a study was conducted by Leow yi qian et al in Malaysia with a sample size of 102 companies using questionnaire as an instrument , the study discovered that the combined factors of cloud security and data privacy, cost effectiveness, Internet reliability, top management support and competitive pressure have a partial impact on the SMEs' intention to adopt ERP on cloud system with top management support as the sole factor showing a significant impact on the intention of cloud-based ERP adoption. However, in the service sectors, the factors have no significant impact on cloud-based ERP adoption This could mean that SMEs in service sector are not prepared to adopt this state-of-the-art technology yet. (Qian et al., 2016)
- In line with that , eight factors have been identified by Tongsuksai et al which are - availability of system, scalability, privacy of data, ease of integration and training of user - from literature. These factors are the most critical in ensuring successful adoption of cloud ERP systems in organization. (Tongsuksai et al., 2019)

CLOUD ERP ADOPTION IN SMES

- According to a study in Malaysia, it was found that policy makers will gain insights into the area to focus their support for SMEs to successfully adopt cloud ERP which can enhance their competitiveness and performance for higher GDP contribution, since SMEs make 98.5% of the business population in Malaysia. (Jayeola et al., 2020)
- Even though, Kiadehi & Mohammadi, (2012) investigated that Cloud Computing has lots of problems in security, because this technology is new and we can see that lots of problems will appear in the future .Data availability or business continuity is one of the most important problems in Cloud Computing environment. Some other obstacles that organizations could face by implementing Cloud ERP include the connection costs for both network and internet and the lack of appropriate security structures for Cloud Computing. On the other hand, SME's or small and medium size organizations have limitations in the amount of investigation in ERP, so they can move to use Cloud ERP. . (Kiadehi & Mohammadi, 2012)

14 CLOUD ERP IMPLEMENTATION IN DEVELOPING COUNTRIES.

- Irish e-Government has long endured a myriad of issues associated with traditional enterprise resource planning (ERP) implementation, hampering their ability for fiscal accountability, to control budgets and adhere to compliance regulations. Cloud ERP is positioned as a revolutionary approach to deploy an ERP solution. The main benefits associated with deploying a cloud ERP in comparison to traditional ERP deployment include low implementation, continuing, licensing and support costs, faster implementation of IT projects and increased agility. (Clohessy & Acton, 2013)
- On the other hand, it was found that it is difficult to implement the cloud ERP system in Egyptian companies. One reason behind this is that the culture in Egypt is different than that of developing countries and that people in Egypt are still not fully aware of the cloud ERP or cloud computing technology in general. (Ashraf Omar et al., 2022)

15 REFLECTION ON LITERATURE REVIEW

In solidarity with most of the research reviewed, the adoption of Cloud ERP in this era has become a reality and essential in order to keep pace with the development of technology and to ensure better outputs and results for institutions, organizations and companies, especially SME , and during to the ease of implementing and controlling compared to the traditional ERP system.

As for the nations level, I have noticed that not many studies on the adoption of C-ERP were conducted in developing countries and the Middle East, and this indicates a lack of knowledge and failure of countries to keep pace with developments emerging in this system, and this may negatively affect companies and institutions in these countries.

REFLECTION ON LITERATURE REVIEW CONT.

- This developed system will provide more flexibility for owners of capital and managers in terms of remote control, whether in cases of long distances or in cases of crises such as Covid-19, Pandemic.

STUDY LIMITATIONS AND FUTURE RESEARCH

- It is noted that the subject study is qualitative and based on secondary data. The author of the paper has not carried out any quantitative data analysis. This is highlighted as a limitation of the current study and identified as a potential area for future research. Future researchers are advised to collect a larger set of data from additional sources and possibly use practical data methods for more accurate findings.
- The research results cannot be used as a generalization to describe the state of developing nations as a whole. Future studies can be carried out in other developing nations. To investigate the effect of culture on the adoption of cloud ERP systems, the research can also be expanded to include nations with various cultural traditions.
- Finally, an industry-specific comparison can be performed to give clients and suppliers a framework on which to base their choices in light of the nature of their businesses.

18 CONCLUSION AND IMPLICATIONS

- This paper consolidated the available literature on the adoption of C-ERP. And it was found that numerous benefits could be realized with the adoption of C-ERP. The paper addressed the adoption of C-ERP in SMEs and developing countries as a point of interest as opposed to the more typical application of C-ERP in large corporations and developed economies.
- The implications of this study include the affirmation of the appeal behind the transformation from traditional ERP to C-ERP, due to the mentioned benefits. In addition, the paper also increases researcher awareness, particularly those in the middle east and developing countries, of the paramount role that cloud computing services can play in resource planning and similar sectors which in turn can significantly benefit the economy.

19 CONCLUSION AND IMPLICATIONS CONT.

- This study also offers beneficial insights for businesses in Libya and the Middle East to help them in their decision to adopt cloud ERP by highlighting the key elements that make this adoption successful. This study contributes to a greater understanding of cloud ERP adoption among investors and business owners.
- Finally , This study will offer the essential assistance for developing and implementing cloud-based enterprise resource planning to policymakers, vendors, designers, and the government.


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THANK YOU

