



Analyzing the Prospects and Limitations of the ERP Market in the World

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Abstract

In the world, there are many large enterprises deploying and using the full set of ERP solutions for production and business management activities in two areas: Manufacturing, manufacturing and service business. In practical reality, ERP is highly appreciated in helping businesses increase their competitiveness effectively. ERP is a promising field and the successful deployment of ERP will save costs and increase capacity and competitive, giving businesses long-term benefits. In addition, ERP application businesses must continue to face many personnel limitations, knowledge, time and cost of implementation at different levels depending on the size and scale of the enterprise.

Keywords: ERP, world market, prospect, limitation

1. Introduction

The ERP market in the world is very diverse and starts to operate very soon with many big companies in the world provide ERP systems such as Concur, IBM, Infor, Kronos, Microsoft, Oracle (both based in the United States); with Sage companies (United Kingdom), SAP (Germany), Totvs (Brazil), and Yonyou (China), merits. All companies have the capacity to implement ERP systems in many countries and their platforms. The value of the ERP software industry in the world is about 25 billion USD. The market of Northern Europe and Western Europe is the largest ERP system deployment area. Emerging markets, especially in the Asia Pacific region, are expected to have the highest growth rates in the future. When implementing ERP systems, many organizations must conduct reforms. The system is optimal to blend into international standards; that has brought significant benefits to organizations in the international market. After successful implementation of ERP system, it is also possible to measure through power labor productivity, processing time, 81% of organizations surveyed said they recognize measurable business benefits after the ERP deployment. Many corporations and managers see ERP as the key to business success

in their career. In top universities, ERP has been taught as a subject in business administration. However, there are still many limitations that organizations face during the system deployment stages of ERP. More than half of the organizations surveyed responded that the cost of ERP implementation is beyond estimation, and many organizations said that the benefits of ERP systems are not yet available as expected. In addition, many organizations face technical issues, and other related issues that they did not anticipate such as deployment time. Human resources of the organization, the leader of the project all have an impact on the deployment of ERP systems in the world. In the future, when information technology develops, with the advent of the next version of ERP, the implementation costs will be lower. There are many improvements, especially faster deployment time.

2. Theoretical Framework

Information and communication technology (ICT) has grown rapidly with the dominance of microelectronics. In the late 1980s, the first ERP systems (Enterprise Resource Planning) appeared. Enterprise resource planning systems provide business management software with modules that cover every aspect of a business. These include production, sales, marketing, finance, human resources, project management, service and maintenance and inventory management. In the early days, they were at the forefront of innovation. Businesses through ERP systems in the late 1980s and early 90s were ahead of the curve. Since then, they have become an important resource for most of today's large corporations. With the rapid development of technology of the IR (Industrial Revolution) 4.0, it has contributed to the opportunities for enterprises to manage businesses automatically. The concept of using ERP in corporate management is of no strangeness. In recent times, more local businesses and local government are aware of the need to promote the application of ERP system. The overall corporate management helps businesses in saving costs and improving their edge pictures on the market.

Những lợi ích mà phần mềm erp mang lại Benefits of the ERP software package

Because of the complexity of the modules functions and interactions between modules, so many companies deploy, if not carefully prepared, often fail. However, if the ERP system is successfully implemented, it will bring a lot of benefits to the business as well as the overall benefits of the business as well as the benefits of each department. On the system side, when successfully deploying ERP system, it will help enterprises with some basic benefits:

- Information is shared centrally, reliably and instantly: ERP system is a hierarchical data structure model, including module groups. Therefore, these components are closely linked to each other and all information is inherited from each other. Software not only collects

and processes large volumes of daily transactions but also quickly provides complex data analysis and diverse reports. All information of the business is updated, declared, censored through many departments, many departments and many people. Internal control system on a software application, from which managers can capture all information quickly, promptly, reliably and make timely decisions.

- Reduce operating costs: This is one of the vital problems of businesses, especially small and medium enterprises. ERP system unifies data flows, restricts manual jobs, assigns tasks reasonably, effectively controls employees' productivity and maximizes operating costs to invest in bigger deals in the future.
- Improve interaction between customers and suppliers: In the past, cooperation may be delayed due to lack of information, lack of communication, especially when cooperation is broken down between many other managers working together. With ERP, employees have access to data immediately without depending on the time or the things others are doing. Instead of just seeing a small corner, employees will have an overview of the business, more confident in the process of communicating and exchanging with customers.
- Improving workflow: Business processes will be streamlined with a simple, flexible interface; users can access all their work-related information from the publication to the schedule work, track history. All that will make the work easier, thereby increasing labor productivity.
- Security of enterprise information: ERP system helps ensure the safety of data, only empowering those who are competent.
- Bring satisfaction to customers: If customer data and inventory data are not on the same system, customer care staff may be delayed in the customer feedback process. The use of ERP software will help the information to be linked, updated accurately, thereby better customer care, retain customers longer.
- Eliminate redundancy: Eliminate manual jobs, update data accurately, do not take much time to review data, synthesize and analyze reports.

From the perspective of departments, ERP brings a lot of practical benefits to help departments operate more efficiently. Specifically, some benefits are available for some departments as follows:

- Benefits for the business department. Reducing quotation time, limiting delays in the process of handling jobs, thus improving productivity and work efficiency. All business data will be shared transparently and accurately among many departments in the organization, helping employees to save maximum time to perform manual work, waiting time before receiving their information they really need. Allows creation of marketing plans, different price brackets, flexible price reduction plans for each campaign. Accurate forecast of delivery time, strict control of orders and inventory.
- Benefits for the production department. The production management module helps the company to plan and accurately calculate the capacity of machines and workers. Help reduce production costs per unit of product. With the use of single software businesses will

certainly reduce costs and increase productivity. In addition, ERP software will automate all business processes of the enterprise from raw material preparation to product marketing.

- Benefits for accounting finance department. A business that is on the rise is easy to encounter errors in accounting procedures if the work is shown manually, information is not shared among departments such as sales, accounting and customer care. Financial reports make employees spend too much time, effort, and gray matter, but the results are not guaranteed. When using all ERP software, all information is fully integrated, automated data analysis helps increase employee performance and limit errors that employees often make during manual accounting. Warehouse management module of ERP system helps enterprises control the inventory accurately and determine optimal inventory level, thereby reducing the demand for working capital, minimizing overdue debt. Synthesis of overall and accurate financial picture for businesses will minimize the cost of bookkeeping. The availability of financial data makes decision making fast and accurate, and allows the creation of measures for implementing strategies. We then see a created close link between operating results and financial effects.
- Benefits for HR department. Helping human resources to streamline the process of human resource management, payroll and reduce management costs as well as limit errors in the salary calculation process. ERP systems often require companies to define a clear process to help decentralize, assign tasks clearly and limit work duplication. It helps businesses check and monitor product quality uniformity, plan and allocate staff appropriately depending on the needs of each project.

Limitations of the ERP market in the world

ERP software brings many benefits for businesses but along with that there are still many unavoidable limitations during the deployment process.

- Large investment costs. Currently, most foreign ERP software costs about a few million dollars for about 50 users (users). This price depends on the number of users and the agreements that come with it. During the use of ERP software, there are many associated costs such as software that is upgraded to a newer version. Enterprises must upgrade hardware, operating and related software for compatibility and use many new innovations.
- Extended deployment time. The process of using ERP software has to go through many stages and usually lasts from 1 to 3 years for large enterprises. The level of application of ERP software in practice is also at a relative level due to the barrier of "culture" in each enterprise. There are some businesses that only use ERP software but cannot meet their needs, but must use one or several other software in parallel (such as accounting software, etc.) to ensure their smooth operation. At that point, the problem is how to make ERP software integrate well with external solutions, from data exchange to workflows, and this is not easy.
- Businesses need time to benefit from ERP. ERP software focuses on improving and developing internal workflows rather than managing operations with

customers, suppliers or associates. And the time to benefit from ERP software appears in the long term, so it must be persevered. Every problem has two sides and ERP software is no exception. Through the benefits and limitations when implementing, businesses need to consider and consider carefully when implementing ERP software for their businesses.

- Selection of appropriate modules. In the process of deploying the system, business processes, corporate culture, the strategic objectives of the business, if not properly understood, will create a system that is too far away, leading to failure to meet the requirements of business demand, increasing risk of disrupting the ERP implementation process.
- Dependence on suppliers and deployment. Most ERP applications are understood in the form of "tailor software", which is meant for a specific purpose of the business. If the implementer stops supporting the product, the system will quickly be unable to meet the requirements of the business and must not be further developed.
- The specialties of the business. The over-specialized business line of the enterprise makes it difficult to find a suitable solution. This requires businesses to find a really experienced operator with their business. One the number of businesses cannot find the right solution to be spontaneous, develop own solution will be at a very expensive cost.
- The complexity of the system. ERP system is the link of many modules to take on different functions. The bigger the system, the harder it is to maintain. Besides, not necessarily when the system meets the requirements of the business, the employees in the enterprise will be able to use proficiently right away. Deploying ERP systems will require additional training costs that are quite expensive.
- Compatibility with extended systems. Although the requirement of an ERP system is the ability to integrate data with other systems, but usually there is no specific standard for data integration due to different systems. Businesses often spend more on data integration or business must be recalculated ability to deploy solutions with existing systems (if any).

The prospect of ERP market in the world

In recent years, ERP software has created the attraction and recognition of positive effects for enterprises to reform operation organization, speed up the development and competitiveness of products and services in the market. Along with the prosperity of many new businesses with broad economic scope, ERP is no longer a solution for large enterprises, or limited industries such as banking, construction and real estate, but applied to many Small and medium enterprises across all sectors. Now more and more large and small corporations are applying ERP in their work. The world of ERP software market now includes hundreds of different big and small suppliers. In it, the largest piece of cake is the Four Giants in the field of enterprise management applications. These companies include SAP, Oracle, Infor, and Microsoft. Together, this Quartet accounts for nearly half of the total ERP market share worldwide. Ministry Tu provides leading ERP solutions, and often targets big customers. Their products have comprehensive features and cater to a wide range of

industries. Specialized ERP solutions penetrate deeply into the process of analyzing, processing information, managing the entire work and forecasting the detailed business development plan of each business. Small and medium-sized enterprises can thus speed up development and increase business efficiency. Large businesses rely on ERP to innovate and improve. ERP systems have changed rapidly over time. Their evolution reflects the evolution of computers and high technology in general. Today, ERP systems are an essential resource to compete in any kind of large-scale industry.

3. Research Methodology

To achieve the research goal, we use the following research methods

- Method of document research: to understand ERP well, we have learned about textbooks, lectures on ERP, studies of predecessors, books, newspapers, magazines, internet ...
- Qualitative research: Implemented through group discussion techniques with a group of 5 members to adjust and supplement the scale of factors affecting the successful implementation of ERP systems in businesses around the world, clarify variables from factors in the model and brand Adjust these variables to suit your business conditions. Determining the factors affecting the application of ERP is based on a summary of the models of new technology applications (information systems, information technology, internet, e-commerce) of authors in the world.

4. Research Results and Discussion

Panorama Consulting Solutions' ERP report for 2018 was conducted on 237 enterprises of many different industries, from small businesses to multi-national organizations with billions of dollars worldwide, hoping to bring to businesses wishing to deploy enterprise management software ERP an overview of the status of ERP application and lessons learned to successfully implement ERP. According to research, companies of different sizes will approach and deploy ERP in different ways to improve and solve a variety of business problems. Accordingly, the expected benefits of different companies will vary. Typically, large-scale companies often approach ERP at strategic level. They seek strong solutions to expand their business scale as businesses grow. Meanwhile, small companies often go into search for solutions to improve performance around core processes.

The recent report from Market Allied Research said that the ERP software market is expected to reach over US \$ 41 billion by 2020, with annual growth rate of 7.2% from 2014 to 2020. One of the biggest innovations pushing this market to grow is the creation of cloud computing technology, helping many businesses transform from packaging solutions to software solutions as a kind of service. However, currently packaged software will still account for the majority of sales, about 57% of market share by 2020. However, the application of cloud solutions will grow at a rapid pace. Another finding from the survey shows that specific specialized markets will lead the growth in ERP application. Aerospace and Defense will grow with the annual market growth rate (Compound Annual Growth Rate CAGR) of about 9% from 2014 to 2020. These industries also target ERP software. In the cloud compared to

packaged software must be installed at the enterprise due to the need to work in real time, according to the results of the survey. Finally, more and more mid-sized businesses are entering the ERP market. In this case, businesses will adopt ERP as a way to reduce overall IT related costs.

5. Conclusion and Recommendation

In the era of digital transformation, ERP has been and still will be the leading solution for all businesses in all types of sectors, countries and scales. The continuous expansion and competition in business requires businesses to invest in effective support systems such as ERP. While in the world, ERP management software has brought many breakthroughs, then in Vietnam, ERP is still something quite new. Most businesses are reluctant to approach ERP. Large costs and uncertainty about the winnings are barriers that make businesses hesitate and to delay decision to invest.

Enterprise management software solutions ERP is built by the actual needs of users, helping many organizations and agencies to comprehensively manage development at the unit. But what the leaders care about is whether these ERP software systems have any downside and what the real benefits are. In a society where technology is constantly changing hills and companies are competing to gain advantage over their rivals, enterprise software plays an important role. ERP solutions can quickly increase efficiency and productivity, enabling businesses to better compete in the digital economy of the global world with the ability to make quick decisions based on key data to help achieve greater efficiency. It can be said that this is the most general management tool because you can control the different processes of the company, understand that all departments of a company are related. ERP business management software understands that a company is a group of departments related to each other by the information they share and create from their professional processes.

References

1. Tran Thi Song Minh, Management Information System Textbook
2. <http://fast.com.vn/erp/quy-mo-thi-truong-erp-ki-vong-vuot-muc-49-ty-do-vao-nam-2020>
3. <https://www.bravo.com.vn/en/Tin-tuc/Kien-thuc-ERP/Ung-dung-giai-phap-ERP-cho-doanh-nghiep-loi-ich-thach-thuc>
4. <https://text.xemtailieu.com/tai-lieu/tinh-hinh-ung-dung-erp-va-su-tac-dong-cua-erp-den-to-chuc-he-thong-thong-tin-ke-toan-tai-cac-doanh-nghiep-viet-nam-72701.html>
5. <http://www.itgvietnam.com/he-thong-erp-la-gi/>
6. <https://skyperp.net/blog/phan-mem-erp-ung-dung-erp-trong-quan-tri-doanh-nghiep-1/post/lich-su-phat-trien-cua-he-thong-erp-13>
7. <http://www.itgvietnam.com/ung-dung-erp-de-don-dau-cuoc-cach-mang-cong-nghiep-4-0/>
8. <https://www.google.com/amp/s/phanmemketoanerp.com/tin-erp/nhung-loi-ich-va-han-che-cua-phan-mem-erp/>
9. <https://www.teamcrop.com/blog/nhung-han-che-cua-erp-thuong-mac-phai>
10. <https://resources.base.vn/productivity/phan-mem-erp-la-gi-uu-nhuoc-diem-cua-erp-erp-phu-hop-voi-doanh-nghiep-nhu-the-n-297>
11. <https://quantriphaphoi.com/loi-ich-va-han-che-khi-doanh-nghiep-trien-khai-phan-mem-erp/>
12. <https://toc.123doc.org/document/518675-loi-ich-va-han-che-cua-he-thong-erp.htm>
13. <http://ierp.vn/6-loi-ich-he-thong-phan-mem-erp-mang-lai-cho-doanh-nghiep>
14. <https://crmviet.vn/loi-ich-phan-mem-erp-mang-lai-hieu-qua-nhu-the-nao/>
15. <https://www.google.com/amp/s/ciber.vn/su-phat-trien-cua-he-thong-erp/amp/>
16. <https://sskey.vn/blog/uu-diem-va-han-che-cua-giai-phap-phan-mem-erp>
17. <http://khoaocvakhampha.com.vn/article/97/dau-cham-het-cua-erp.html>
18. <http://www.misa.com.vn/tin-tuc/chi-tiet/newsid/62369/He-thong-phan-mem-ERP-la-gi>
19. <https://phanmemketoanerp.com/tin-erp/nhung-loi-ich-va-han-che-cua-phan-mem-erp/>
20. <https://www.bravo.com.vn/en/Tin-tuc/Kien-thuc-ERP/He-thong-ERP-co-loi-ich-gi-khi-trien-khai>
21. <https://www.amis.vn/tin-tuc/newsid/1193/So-sanh-cac-loai-phan-mem-ERP-tren-thi-truong-hien-nay/>
22. <https://ocd.vn/tin-tuc/cong-dong-doanh-nghiep/1717-thi-truong-erp-viet-nam-va-dinh-huong-ung-dung-erp-tai-cac-doanh-nghiep.html>
23. <https://apzon.vn/trien-khai-phan-mem-erp-tu-chien-luoc-den-thuc-thi/>
24. <https://youthdev.net/en/top-15-loi-ich-khi-ap-dung-phan-mem-erp/>
25. <https://www.teamcrop.com/blog/nhung-han-che-cua-erp-thuong-mac-phai>
26. <http://fast.com.vn/http-doanh-nghiep/phan-mem-erp-se-nhu-the-nao-trong-mot-vai-nam-toi>
27. <https://www.bravo.com.vn/en/Tin-tuc/Kien-thuc-ERP/Nhung-luu-y-de-trien-khai-ERP-thanh-cong>
28. <https://tinhte.vn/threads/tim-hieu-ve-erp-giai-phap-phan-mem-quan-ly-da-nang-dung-trong-cac-doanh-nghiep.2254525/>
29. <https://crmviet.vn/phan-mem-erp-la-gi-enterprise-resource-planning-la-gi/>
30. <https://www.bravo.com.vn/en/Tin-tuc/Kien-thuc-ERP/Vai-tro-cua-he-thong-ERP-trong-quan-ly-doanh-nghiep>