



Analyzing the Prospects and Limitations of the ERP Market in Vietnam

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Abstract

The purpose of this qualitative research is to identify the factors affecting the ERP application at the enterprise. Determining the factors affecting the application of ERP in Vietnamese enterprises is based on the summary of models of new technology application (information, information technology, Internet, e-commerce) models of different authors in the world and Vietnam. On the basis of considering the specific factors of Vietnamese enterprises, this article has shaped the model of the factors affecting the application of ERP for Vietnamese enterprises.

Keywords: ERP, prospects, limitations, Vietnam

1. Introduction

Businesses are increasingly gearing towards ERP solutions that best support their industry. The greatest value that ERP solutions bring to business is the process, management experience and best practices in business. In addition to technological capabilities such as operational capacity, security, and interoperability, as for information systems in general, business ability is a must-consider factor when a business wants to ERP application. There is no common ERP model for all enterprises, each ERP system needs to be built based on industry factors, favorable conditions and specific difficulties, organizational structure, scale and business plan of the enterprises.

Industry is the most important factor for building an ERP system. Financial management is a core part of most ERP systems. For businesses in the financial services sector such as banking, insurance, ERP systems include corporate financial management integrated with core business system (core banking, core insurance). For commercial businesses such as wholesale and retail, ERP systems must include financial management, warehouse management, purchasing and sales management. Manufacturing enterprises will need to add production management, quality management, and factory - equipment management modules to the existing ERP systems. For businesses with multidisciplinary corporations, the overall ERP system for enterprises consists of two layers to serve two levels of management: corporate management class and specific management layers of applications. The corporate management class includes business processes throughout the enterprise or supports unified management at the corporate level, for example financial management, human resource management, and integrated reporting systems (BI). Management classes in member units include business processes suitable to each specific business line such as sales, production, project management, customer management.

An overall ERP system can cover all business processes in the enterprise. However, to build such a system, a roadmap is needed. Prioritizing to make ERP with a prior component, which of the following depends on the conditions of advantages, disadvantages, and specific business plans of each business. It is possible that the two retailers sell the

same products on the same scale, but one side needs to give priority to strict financial management throughout the chain, the other side is struggling to run the center of distribution. Therefore, the ERP roadmap of these two enterprises cannot be the same.

ERP for each business is built on the specific business conditions of that business. Efficiency of ERP system depends very much on the capacity of the implementer. ERP implementation capabilities include industry-based consulting capabilities, technological capabilities and support capabilities. The capacity of consulting by industry is accumulated through many projects in the same industry. For example, a developer with experience in the banking industry will deploy a new project for a faster bank with lower risk. Professional experience provides best-practice, not only best-practice of integrated solutions, but also best-practices are drawn from the understanding of domestic business environment and business professional factors in enterprises they have deployed. ERP system does not stand alone. There is often a need to integrate the new management system of an enterprise to inherit pre-invested systems or link to other business systems, for example integrating ERP with Core Banking in banks or ERP with POS in retail businesses. Integration is complex work, requiring very high technological capabilities from implementers. In addition to programming skills, they must understand the technology platforms, security solutions and information flow in the business.

Making ERP is a major change process for businesses. Frequently asked questions before making ERP are "Where to start?" It must be from the business problem of the business itself. ERP is no longer a mere IT system. It has included many business values inside. When an ERP business, professional staff must be the one who asks, participates in the development of future processes and acceptance - takeover of the system. ERP projects often have more professional resources than technology resources. The career values of the solution and the partner's consulting experience are the key bases for businesses to choose for their ERP systems. Understanding the source of the problem and seeing the development trend of the solution is a premise for the business to make the right

choice. The success of each project starts from there.

2. Theoretical Framework

The concept of Vietnam ERP has appeared since 2000, when products of SAP, Oracle, and Dynamic began to be introduced to domestic enterprises. Until now, their products have been present in Vietnam market under the advice and deployment of local partners. Current domestic ERP products mostly develop their ERP system from the experience of deploying accounting software. Rather, they have upgraded their accounting software to domestic ERP applications and entered the ERP market. The segment that domestic products are targeting embraces medium-sized enterprises and is facing the need for innovation and comprehensive restructuring.

It can be seen from the beginning of the boom, the ERP market is clearly divided. Big corporations use large systems from abroad. The rest is in fierce competition of domestic ERP products. However, after the boom time, the heat of ERP gradually subsided. It seems that businesses are no longer interested in this market. But the global economic crisis and the influence of the Vietnamese economy have caused businesses to choose, restructure or break down. Once again, ERP has become a vanguard for businesses. According to experts, after crisis, businesses will find more and more ERP.

In fact, many businesses have struggled to implement famous solutions from foreign ERP. The reason is not because of the product quality but the specificity of the Vietnamese market. According to Trinh Hoai Son, Deputy Head of the Department of Management Information Systems in National Economics University, "ERP is extremely modern, but if it is modern, it is not suitable for the current state of business, it could become useless. Foreign ERP is like a highway for cars only. Vietnamese businesses are like bicycles that are trying to run on the highway". Because of that, it creates opportunities for internal ERP products to develop. The development of internal ERP system thanks to market understanding, changes in policies should be suitable as well as flexible with the business reality of the Vietnamese market. It can be seen that Vietnam's ERP market will start to be more exciting in the future and unlike the previous decade, Vietnamese enterprises have started to have advantages to be ready to compete and dominate the ERP market. The situation of ERP application is growing in Vietnam: more and more enterprises in different industries have applied this system to management, with the following long-term benefits:

a) Benefits

- Information shared, focused, reliable and instantaneous. ERP systems are models with hierarchical data structures, including subsystems and modules. These components are closely linked to each other. And so the information is inherited from each other. It not only collects and processes large volumes of daily transactions, but also quickly builds complex analyzes and diverse reports. All information of the organization is declared and censored through many departments, departments and many people. Like an internal control system on the same ERP application. Help managers get fast, timely and reliable management information. Since then make timely decisions. The group of

accounting and financial modules of ERP helps to limit errors that employees often make in manual accounting.

- Real-time information, increase production efficiency. The warehouse management module of the ERP system helps the company to track inventory accurately and determine the optimal inventory level, thereby reducing the demand for working capital, increasing production efficiency. The production management module helps the company to plan and accurately calculate the capacity of machines and workers, reducing production costs per unit of product. By using a single system, businesses will certainly reduce costs and increase productivity. In addition, ERP will automate all production processes of the enterprise from raw material preparation to the market.
- Managing personnel effectively, clear processes, eliminating duplication of work. ERP application helps HR to streamline human resource management and payroll processes, reduce management costs as well as limit errors and frauds in the payroll system. ERP systems often require companies to define clear processes to help decentralize and assign tasks clearly. Limit duplication of work.
- Quality control, project management. ERP helps businesses check and track product quality uniformity, and plan and allocate resources appropriately according to project needs.

b) Limitations of ERP software

- Large investment costs. Currently the majority of foreign ERP software is implemented by Vietnamese companies. And it costs about several million USD for about 50 users (users). Software written by Vietnamese companies ranges from several hundred million to several billion VND. The price depends on the number of users and the agreements that come with it. During the ERP application process, there are additional costs incurred. For example, software is upgraded to newer technology. Enterprises must upgrade hardware, operating system and other related software for compatibility.
- Extended deployment time. The process of ERP implementation goes through many stages and usually lasts from 1 to 3 years. Large corporations deploy subsidiaries that last up to 5 years or more. The level of ERP application in practice is also at a relative level due to the barrier of "culture" in each business. Some organizations have to use multiple ERP software in parallel to get the right choice.
- Human factors. In fact, changing software is not as important as the employees in the company change themselves to take advantage of the software. ERP software helps companies save a significant amount of money compared to performing manual work, but if you simply install the software and then leave it and don't change the way it works, it's just wasted. Perhaps this is the reason why many ERP projects fail the most. To use ERP requires businesses to change old ways of doing things. Many people who are not ready to change will refuse to use ERP. Incorporating ERP can help businesses and customers, but make these employees lose their interests. This is also something that companies are very worried about because it leads to the failure of an ERP integration project.

- Need time to benefit from ERP. ERP implementation focuses on improving, developing internal internal work paths rather than customers, suppliers or associates. And of course the "benefits" of ERP only appear in the long term, so it must be persevered. Meta Group's 63 research works showed that it took eight months to see the benefits of ERP after the new system was installed. But the annual savings from the ERP system are 1.6 million US dollars.

c) Prospects

ERP is an integrated software solution that allows businesses to improve processes related to planning, distribution, finance, marketing and human resources. With ERP systems, businesses can make decisions more effectively based on real-time analysis, reduced waste and redundant tasks, improved performance, better results but less resource usage. In short, ERP is a personalized software solution for seamless integration and coordination of business processes. The interesting news is that this market is growing at a high level as more and more companies take advantage of ERP to improve their operational capacity. Thanks to the influence of industrial revolution 4.0, the situation of ERP application is growing in Vietnam: more and more enterprises in different industries have applied this management system. Especially, there is fierce competition between domestic and foreign solutions. Initially, some businesses are often large corporations applying ERP, then other companies gradually realize benefits and "follow" to apply, some other businesses have not applied immediately but only observed and consider whether or not to implement and deploy at the appropriate time. ERP awareness is also increasing. The tendency of ERP application by industry is becoming more and more obvious. Many businesses have applied ERP in the beverage industry such as Hue beer company, Carlsberg beer; in confectionery industry such as Kinh Do, Bibica, Pham Nguyen; in textile industry such as May 10 company, Tien Tien garment company, Savimex company, Mai Phuong Vy limited company; In the retail industry such as Mobile World, Vien Thong A, Tran Anh, ... The more businesses in the application industry and the greater competition will create conditions for ERP development.

2. Research Results and Discussion

Only 3 out of 10 largest enterprises in Vietnam have announced the application of ERP (Enterprise Resource Planning) in the enterprise. ERP system to effectively manage petroleum business in Petrolimex is currently the largest ERP system in Vietnam. Businesses are looking at ERP as an effective tool and solution to improve product quality, save costs, increase profits, increase competitiveness and brand development, while minimizing risks of economic losses due to timely updated business data and data and ensuring financial transparency and transparency. As the Chairman of FPT IS, Mr. Do Cao Bao once suggested that if only about VND 1,000 billion for IT systems are to support corporate financial management should be invested, Vinashine and Vinalines did not lose up to VND 92,000 billion. However, in Vietnam, the number of corporations and enterprises investing in ERP implementation is still modest. For example, in the Top 10 leading enterprises of the ranking of 500 largest enterprises in Vietnam VNR500, only 3 enterprises have publicly

announced on mass media and the Internet about the deployment of ERP in All businesses are Vietnam National Petroleum Group, Vietnam - Russia Joint Venture Vietsovpetro and Vietnam Electricity Group (7 enterprises, the rest include Vietnam Oil and Gas Group, Vietnam Post and Telecommunications Group, Samsung Electronics Vietnam Co., Ltd., Military Telecommunications Group, Saigon Jewelry Company Limited - SJC, Vietnam Coal - Mineral Industry Group, Vietnam Bank for Agriculture & Rural Development In the case of the Military Telecommunications Group, according to ICTnews' research, it has self-developed ERP solutions and applications within the Group but not disclosed).

SAP ERP system at Vietnam National Petroleum Group (Petrolimex), built in 3 years (2010-2012) with a value of up to 12.6 million USD, is the largest ERP system in Vietnam. Officially operated nationwide since January 1, 2013, this system has connected petroleum business administration from the parent company - Vietnam National Petroleum Group to 42 companies, 21 branches, 11 enterprises, 44 depots and total petroleum depots, 118 locations, integrated with management systems at more than 2,200 petroleum stores nationwide. Petrolimex is also an enterprise deploying the announcement of the most powerful and aggressive ERP application. Vietsovpetro has targeted ERP solution of Oracle since 2003 and in 2006 ERP system has helped this enterprise modernize the whole world standard management process, from purchasing, warehousing, delivery, , manage materials until the stage of trade, finance and accounting, human resources ...; reduce overlap and ensure a highly consistent process at 15 units of the entire enterprise. Vietnam Electricity Group since early 2009 announced that it is implementing Oracle ERP software system project with financial, materials, assets, personnel - salary ... modules for enterprises in the electricity industry. Talking with ICT news about the status of enterprises and corporations in Vietnam have deployed ERP, representatives of Vietnam Software & IT Services Association (VINASA) said: The number of enterprises and corporations implementing ERP on In fact, it may be bigger than the number of businesses announcing ERP implementation. Because ERP implementation is not simple, and there have been projects that have collapsed or failed to achieve the expected success when it is impossible to change the traditional way of governance, making businesses not want to promote or propagate. The number of enterprises in Vietnam interested in implementing ERP tends to increase and most of them are still targeting two ERP solutions that dominate the Vietnam market, SAP ERP and Oracle ERP (ready to meet the demand) of large IT systems. Some other businesses due to funding constraints are looking to "internal" solutions with smaller scope and scale of deployment. On the side of ERP implementers in Vietnam, FPT is the IT enterprise with the largest number of ERP customers (according to EAC statistics released in February 2010, there are 103 Vietnamese enterprises nationwide). Besides FPT, there are some other names such as SSG (Sunshine Gimasys), Lac Viet, Pythis (Pyramid), TVE, CSC (Global SyberSoft), CMC, HPT, PVTech, Tectura ... It can be seen, by chance The Association selects solutions and units to deploy ERP more and more diversified and diversified. The problem is whether businesses, corporations are determined to "replace blood" to apply ERP or not only.

3. Conclusion and Recommendation

Corporations and enterprises deploying SAP ERP applications include: Petrolimex, Vinamilk, Vietnam Steel Group, P&G Vietnam, Panasonic Vietnam, Bao Minh Insurance Company, Tan Tao Group, Tan Hiep Phat ... Corporations and enterprises are deploying Oracle ERP applications including: Vietsopetro, Vietnam Electricity Group, Global Telecommunications Company GTEL, Unilever Vietnam, Trung Nguyen Coffee, HT Mobile, Service Joint Stock Company HPT Informatics, Zamil Steel Vietnam. According to the survey results of IT applications in corporations, corporations and state banks, Mr. Pham Tan Cong, Chief of Central Office of the Party Committee of Central Enterprises recently announced, only 5 out of 19 enterprises surveyed said they have implemented ERP application (equivalent to 28%) but looking to the future, 7/19 enterprises said they will deploy ERP in the near future (37%).

Odoo ERP solution is applied more widely to operate Vietnamese enterprises thanks to the advantages of consistency, flexibility and savings. The most outstanding among the open source enterprise management software, overcoming the disadvantages of discrete, inconsistent of individual management software, solutions of Odoo ERP Vietnam with its advantages It is the long-term and sustainable development orientation for the most effective corporate governance system. Orientation is to use Odoo ERP solution. Although a software solution gives businesses a lot of benefits, those benefits only maximize when your business chooses an ERP solution on a platform that is suitable for your unit. In the market today there are many ERP development platforms, a suitable solution must first be determined based on the criteria including:

- Company size
- The number of people using the ERP system
- Type of business activities
- Prospects to expand and develop in the future
- Sales and sales scale
- Scale of production and business
- Financial resources of enterprises

In an integrated economy with fierce competition, businesses, regardless of their production, trade or service sectors, need to invest in many different aspects such as communication, advertise, update technology lines, train personnel, upgrade equipment facilities and a management tools. All will become a problem for business leaders in spending their limited financial resources. Right now, an open platform solution is clearly the best option for businesses. In particular, Odoo ERP solution - popular language-based solution is Python, Javascript and XML, PostgreSQL database has been successfully implemented by many partners in the operation of enterprises in Vietnam. In recent years, with the advantages of being appreciated, convenient, customized, consistent, tightness and cost savings Odoo ERP is not merely a software that helps businesses operate and manage the business resources optimally, but it is also an effective support tool for planning, building strategies, Operational plans of businesses effectively with high flexibility, flexibility, and scalability of feature modules whenever necessary. A multi-module solution, tightly connecting functional departments from large-scale, multi-national companies to small companies that not only allows users to maximize the

resources of the enterprise It also allows leaders, managers to assess, analyze and forecast the development trend of business activities in the future.

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