Research on SME Information and Architecture Platform Software

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Abstract. Nowadays, the information is increasingly popular, it has been chosen by more and more companies to increase the efficiency and to enhance the ability to withstand risks. It is the demand to promote the growth of management software market. However, traditional management software has been replaced gradually by the new generation of architecture software because of the defects such as it can not meet the changes, the features and technology are simple and so on. Architecture platform technology is a new software design patterns rising in recent years, it has great flexibility and extensibility, it can be selected to use according to the current demand of the customers, and it has a better secondary development interface.

Keywords: SME; information; architecture;

1. Introduction

Management information is an important part of information, its purpose must be to improve corporate governance, to enhance management efficiency and to increase the level of management services. By the way of information which is an effective means to achieve new management, enterprises can put more efforts to research and development, supply chain and customer relationship management, as a result, the interior will become simple and effective, the inappropriate habits and practices of individuals and organizations will be removed. Through the scientific decision-making and the standard workflow, the employee behavior will be optimized, and the productivity will be increased, and the human, financial and material resources are combined together effectively to produce new efficiency.

2. The Development Status of SME Management Software Market

According to different management software applications, SME market can be divided into three categories: the primary SME market using stand-alone version of management software; and the intermediate SME market using on-line separate business management software; and the advanced SME market using enterprise-level integrated management software. In which, the primary and intermediate markets have the greatest potential, Most of the domestic management software vendor are competing in this market..

Along with the enter of more and more ERP vendor, the competition of the low-end SME market will be further upgraded.The main competition on the SME market is the domestic management software vendor, who have more than 90% share of the market, this pattern will persist in 3-5 years. In the present, foreign management software vendors in the SME market is early in the entry, their market share will not exceed 10%, the customers are mainly concentrated in the high-level SME market.

In the past, for the foreign ERP vendor, they disdain to fight for market share of SME. But, the competition of the high-level ERP market is intense, especially with the gradually improvement of the domestic and high-end ERP software, the high-end is no longer dominated by foreign software, and began to develop gradually on all sides. Foreign ERP vendors have to enter the ERP market of SME. After all, the ERP

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market of SME in China is still very substantial. So, the domestic management software companies should seize the opportunity, focusing on the local SME market.

3. The Defects of Traditional Management Software

According to the survey data about SME shows that only 21% of them indicate clear that they can find a suitable ERP system to their own needs, 54% of them think that they are difficult to find more suitable ERP products to their needs, and a quarter of SMEs say that the issue is difficult to express clearly, and it can not be generalized. Chinese enterprises (including large enterprises) have invested more than 80 million, but the real successful implementation is only 10%---20% rate, it is very few to achieve the desired goal. From a practical point of view, the investment is huge but the successful rate is not high, on the whole it is not satisfactory.

The defects of the traditional management software can be summed up as follows:

3.1   System Software Doesn't Match with Business Needs

System software does not match with business needs, that is, it is the contradiction between standardization and personalization.The rapid development of SMEs, it also brings even more formidable challenge, the rapid growth of the organization, the increasingly refined division of the labor, the business must continue to change the management and to strengthen the control system in order to endure the challenges and the crises of the growth process. In the course of the implementation of ERP applications, the customer satisfaction keeps lower. The main reason is that the renewal cycle of the product is speeding up, and the market response is rapid, and the request to the personalty of ERP is improving, and it must be able to synchronize to the organization, the traditional general-purpose ERP can not meet the needs of the enterprise.

The function of a good ERP software is 70% (the common) +20% (the Industry) +10% (the personality).Enterprise applications are diverse, the demand of different industry to the version of the application software is not the same, too.Even the corporate restructures, the software must adapt to the environment, basically, the change is not needed .

3.2   ERP Is 'Deified'

Under the speculation in the market, ERP is "deified", as if all problems can be solved through the ERP. In fact, the misleading and the disorder of the management software is the biggest problem, on the one hand, the traditional management software companies promote the initial understanding of the information, but when they want to say that is all of the management software, it is really an misleading to the customers.

Software vendor must not talk about the weaknesses of the products. The concept, the technology and the management thought of IT are advanced and impeccable. In addition, the business understand poorly about the function and the usage of ERP, their expectations are too high, and ERP is thought as a panacea for enterprise management, and it is regarded as a panacea for all problems, they think the problems can be resolved through the implementation of ERP. In fact, ERP is trying to solve the most direct and critical issue in the competition just like the allocation of resources, the operational efficiency, and the resulting cost. But it can not solve all the problems of enterprises, such as the choice of corporate strategy, the shaping of corporate culture, the establishment of enterprise system, the corporate finance and other issues.

As a result, it is unrealistic that if we want to realize significant benefits in return directly and quickly through the ERP; and if we have the idea to the implementation of ERP, then the failure is inevitable eventually.

3.3   The Features and The Technology Are Simple

Some of the domestic management software vendor for which financial software is the core , in the transition to the management software, its own ERP products are also launched, the comprehensive benefits are very clear, their experience are so rich from the usability to the price of the product.But the main drawback is that the function of the product has not yet done in the manufacturing industry segments and standardization.for the majority, the management thought of ERP isn't reflected, and the impact of past financial software isn't got rid of, and the features and the technology are simple.

For example, the foreign products frequently have thousands of modules, and the first generation of ERP generally has only a few modules; foreign products can run on the 64-bit UNIX mainframe based on 64-bit database such as DB2, Oracle and so on, but, the first generation of domestic ERP in general only support NT platform and 32-bit database, the performance and the function of the product is far from satisfactory.

For traditional software, because of the defects such as it can't adjust to the change, its flexibility is poor, it can't meet the actual situation of enterprises,and its features and technology are simple and so on, it spawned a new generation of management software technologies -architecture platform technology. It is generally agreed by industry experts that the management software industry in china is going through the change in the theme of industry and platform, namely: the ERP platform has been formed based on value chain system, the needs of upstream and downstream in the industrial chain are integrated to manage, through the software of industry and platform.

4. The Advantages of Architecture Platform Management Software

Platform technology is a kind of integrated and assembled software production similar to "parts assembly" , the concept of the parts, the production lines and assembly operation is applied to the software industry, the traditional workshop-style software development model had been thoroughly broken .In early 2002, Gartner company (the pioneer of the ERP / MRPII theory) points out that platform software is the development trend of management software on the report about the future development of software architecture.

What is platform software, the industry has a widespread definition, "architecture platform technology is also often called the component or platform technology, which is built on a common platform features which are composed of parts one by one, which are independent strongly between each other, which can be used independently, through the unified data interface and the seamless integration with each other can be achieved. "platform software is to built the common layer on top of middleware, a number of management efficiency-based software products have something in common are abstracted out a module, and then which are made to many very small components, to form a component library, software developers can select components needed to build their own products from which according to their required.

It can be regarded popularly as "live software", just like toy brick, thousands of shape can be built. Management software based on platform have made an enormous impact on the software industry. First, the management software will enter the era of personality. The new generation of management software based on platform has three characteristics: platform, integration and personality. Among of them, platform refers to that the new generation of management software will be based on basic software platform, which can greatly improve the efficiency of the development and the implementation of software; integration refers to that different management software will be able to achieve the seamless integration of basic software platform; personality refers to that the customers can take advantage of the tools provided by the platform to meet their individual needs quickly.

Specifically, the advantages of platform software mainly are:

4.1   The Feature Is Comprehensive and The Coverage Is Extensive
The feature of the platform software is more comprehensive, the coverage is more extensive, the open is better.With the increase of the information level, a variety of software are applied by enterprise, such as: SCM, CRM, OA and so on.The platform software covers the traditional ERP, CRM, SCM, OA and other fields, above the unified framework and platform, a variety of management software has good interoperability and compatibility, the degree of integration is higher, the open is better, and multiple operating systems and databases are supported.Thus,customers do not care what kind of hardware or database platform is adopted, application softwares are not subject to the impact of the migration of hardware platforms.

4.2   The Capacity of The Deployment And The Implementation Is Rapid, Flexible
Platform software has the capacity of the deployment and the implementation is more rapid , more flexible and convenient secondary development.Because ERP is the core of enterprise applications, for

enterprise application softwares such as ERP, it is known that the deployment and the implementation of the software is more important than the function and the performance of the software itself, if the deployment fails, then all of the inputs will be wasted in vain, and the risk is wanted to be avoided by every business.

To use traditional ERP software, the customers need to spend a lot of time and energy on the comparing of the products, and the selection, even after a period of time, the products are found that the requirements don't be meet, and then the cost has been invested only for naughty. Moreover, companies want to see the rewards immediately after they spend lots of money to implement ERP software, although the return of information isn't so fast.

Most of the first generation of ERP are born out of the combination of financial software and MRPII , this combination is not only stiff and lower integration, but also the structure is rigid and inflexible, and then it is unable to adapt to the ever-changing environment and needs of the business. When they are customized and developed secondarily, the progress of the process is often slowly, and the implementation is so difficulty.

Platform software will have better features and secondary development interface, in the implementation, it can be quickly deployed and secondary developed based on the characteristics of the customers, they can maximize the features of the development management software close to their own.For software developers, platform software not only provides customers with convenience, while the questions such as the system expansion, the system integration and the problems of secondary development is also solved, just like the automatic generation of interfaces, common functions automatically entry into force, and the efficiency of the software vendor is greatly improved and the costs is reduced.

Platform provides the software platform as a solution to the enterprise information, which builds in a variety of management software components and efficient secondary development tools, its components can be developed in multiple languages, many small modules can be developed one by one, then every small module is independent to each other and they can be formed into one component, and these components will be assembled together to form the final product. We can use these components by management and deletion, addition and modification, even rearchitecture, and we can change any part of them without affecting other functions.This is the flexibility and the easily brought by the platform, minor changes can be achieved directly through some of the features of the system, and the source code is unnecessary to change, which can reduce the difficulty of software development of the enterprise information and improve the development efficiency, and improve the flexibility and the scalability of the system.On the one hand, the management information vendor can easily meet the individual needs of the customers through the component provided by the platform, and all kinds of changing needs of the customers in the development process.On the other hand, the business logic and the development technology of the application software are relatively separated, which make the application software developers can focus only on the application of business tasks, without its technical implementation.This allows management and operational staff can be involved into the development of application software .

4.3   To Realize The Resource Sharing Between Enterprises

Platform software is no longer confined to the internal resource management of the enterprise, just like the first generation of ERP, it forms many enterprises of the whole industry chain as closer coordination of production organization through Internet and data platform, and realize the sharing of resource between enterprises, and help them to clear the respective information silos, and achieve the effective integration by the interconnection, the interoperability and the interactive of various functions. In the past, the ERP-based competition between enterprises has transformed into the competition between the corporate chains of coordination operations, which greatly enhances the competitiveness of enterprises.

It is because of many advantages of platform software, the foreign companies like SAP and Oracle have turned to it, and domestic management software has made an breakthrough on the technology and the product of the second generation of platform software, and it must bring greater efficiency to many domestic enterprises. Many domestic softwares like Brocade Open9000 e-commerce software suite and gold abacus VP platform represent a new generation of enterprise management software platform, they are recognized as an upgrade of the first generation of ERP products.

5. Summary

With the giant of the foreign management software had gradually started to seize the domestic market of ERP, domestic ERP software vendor have to face a new challenge, and at the same time, an opportunity, too, which can make the domestic ERP vendor to pay more attention to their own product development. Domestic ERP softwares, compared with the similar products of SAP, Oracle and other companies, there are still relatively large distance. When platform technology is becoming the main trend of the management software, the domestic software vendors should firmly grasp the opportunity , to account for the domestic ERP market, and the conflicts will be solved fundamentally between the individual needs and the common of software of enterprise applications, to lead traditional Chinese management software customers into the era of "customer-centric" platform. while SMEs can really taste the good of the information after the application of the technology.

6. References

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