

Design of ERP Demand Analysis and Invoicing in Small Business Enterprise

Ruijuan Ji, Hongda Wang

School of Business Administration, Tianjin Polytechnic University, Tianjin, China Email: jiruijuan86@126.com

Abstract: The needs analysis for the ERP is a study. We take example for small business enterprise, which analysed their characteristics and needs and combined with the selected ERP software - UF-commerce link of the function Based on a number of relevant documents, I design the invoicing program chart in small business enterprises.

Keywords: Requirements of ERP; Business Link; Invoicing program

In the implementation of ERP system is an important part of information construction in our country. The use of ERP system's enterprises achieve great success which improve enterprise management and reduce business cost. It is a only way to seek survival, development and competitive advantage.

1. ERP demand analysis of the concept and task

1.1 ERP demand analysis of the concept

In terms of the implementation of ERP systems, ERP demand analysis comprehensively and accurately understand user needs, the ERP software function reach an agreement with customer, estimated software risks and evaluate project

costs, in the final it is a complex process which develop or implement the program. In this process, the user is a dominant position, needs analysis engineers and project managers collate user demand which lay the foundation for ERP software selection. Broadly understood, needs analysis contain requirements capture, analysis, specification, modification, verification, management of a series of requirements engineering. Narrowly understood, needs analysis refers to the process requirements analysis and definition.

1.2 ERP demand analysis of task

ERP requirements analysis stage of the most basic task accurately answer that "what does system do?"(Figure 1)

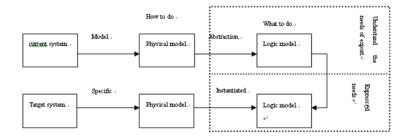


Figure 1. Requirements analysis task

2. ERP demand analysis and process in small Business Enterprise

Commercial enterprises will be commercial retail enterprises. Commercial retail business is direct-to-end consumer retail which set up goods business premises and counter, not self-produced goods, including direct sales of general merchandise in department stores, supermarkets, retail stores.

For small business enterprises, the management focuses on IT projects with less overall investment, in the simple ordinary course of business applications, high personal satisfaction, to quickly raise the overall level of enterprise management applications. The nature of demand is the smooth flow of goods, money to the best of its advantages, the best use. First of all, the financial system starts from financial management, then sales, purchasing, inventory, and then the next job customer service. Management needs mainly follow aspects:

(1)Specification to standardize cost accounting and control of small business enterprises is the most urgent needs. Because the small business enterprise management was relatively backward, inadequate business regulations, and business owner pays the most attention in this regard. Their specific needs follows: ① Checkout operation can be divided into batches. Because small



business enterprises sell the small number of varieties products and is not easy to batch operations; ② Calculated each time the actual cost of various goods, and promptly classified pay the money.

- (2) Urgent need to accelerate the expansion of their business, covering a range of enterprises established sales network, it is an adjunct of the existing system and makes up the sales branch shortcomings which can not be shared between the selling of goods distribution and logistics management. Existing enterprise network marketing is characterized by more networks, more high-frequency, sale of the variety and few quantity, logistics costs and administrative expenses are far higher than the large and medium-sized enterprises. And independent of each sales branch sales model can not share the marketing of goods distribution and logistics resources, which adds to the cost of marketing and logistics management and has seriously hindered the conduct of their business. So small business enterprises need to find a new model to address the shortcomings of existing systems, which its business toward is more perfect and healthier direction. Their specific needs follows: (1) It need set up a enterprise sales network which is the wide distribution, high efficiency, the Flexible market; 2 It needs increase to summary sale orders and resilience of resource logistics inventory. 3 It needs have a good product after-sales service
- (3) It tends to quickly achieve standardization of Logistics Management. It makes the financial sector to accurately control buying and selling activities and makes the operators to grasp the procurement and sales situations. Logistics management includes three parts: procurement of goods, the delivery of products and inventory management of goods. The needs include: (1) It can reduce logistics expense and costs; 2 It can compress inventory, reduce the liquidity of the occupation; 3 It receive timely information which send, save the situation on a product, including that procurement planning, supplier selection and procurement funds of the occupation should be based on evidence. It also masters a time point between sending goods and arriving and manner to the existing commodities inventory in time. 4 It closely connects to financial sectors and control purchasing costs efficiently.
- (4) It can solve business e-commerce platform to expand business promotion, sales channels, increase service capacity. Main requirements are: ① A e-commerce platform is established; ② It can strengthen internal inventory management; ③ It can handle customer feedback to enhance the views; ④It can enhance customer relationship management system.

Commercial circulation organization's mission is to understand the market and the market needs of customers and targeted provide delivery of products and services. In an enterprise all resources contain three streams: logistics, capital flow and information flow. ERP is the integration of these three resources management. Business distribution companies of business activities are buying and selling activities.

Small business enterprises of the supply chain process are as follows Figure 2:

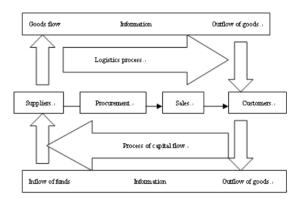


Figure 2. business operations of the supply chain

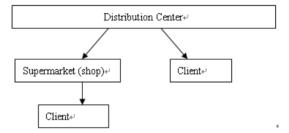


Figure 3. Business flow chart

3. Selection of ERP software functions

Based on small business company characteristics and needs, we choose small business software products UF. Application of the Client: a small business company, food, daily chemical, metal, steel and many other industries.

UF-link Products: Business Link Standard Edition / popular version (only management business for a small company)

On February 28, 2005, UF Software AG, which is China's largest management software, ERP software and financial software provider announces in Beijing growth-oriented business deployment strategy: the establishment of small-scale management software division, "UF -link" series complete distribution network of channel partners, national concentration customer service system, commitment to meet the growing demand for management information-oriented, to build a new standard for small business management software using new business model. Meanwhile the "Business Link" products contain a tailored specifically for small business enterprises of refined management software to help companies "do business and sort goods", which small



business enterprises information provide a perfect solution.

UF-link Business Management System is an information management system of small business enterprise, which combines purchase, sale, transfer, inventory all sectors of the capital flow, logistics, operations management and financial accounting as a whole and can be used commercial enterprises which contain in the field of small-scale circulation of commodities commerce, materials supply, wholesale apparel, general trading companies and so on. It is a set of true business management software, to help companies "do business and sort goods". The notable features of the product are easy to learn, easy to use, stable and efficient.

UF-commerce link products the whole application architecture is as follows

Ð	Process Op	peration Navigation.			
	a	Order.1	4	a	4
	Purchase.	Storage.1		a	4
		Invoices.1		a	4
		Payment.		Accounts for	4
	a	Quote.1		management.₁	4
	a	Order.1			4
	Sale.1	Storage.			4
		Invoices.1			4
		Payment.			4
	a	Other storage.		a	4
	Inventory.	Trustee, delegate.		at a second	4
		Assembly, disassembly.		a	4
		Allocation adjustment.		a	4
		Cost.1		Option.,	4
	a	Tabulation.			4
	Finance.	Transfer.			4
		Financial report.			4
		Checkout.			4

Table 1. Business-link diagram

4. Invoicing services designing in small business enterprises

Based on small business enterprises process and organizational structure, combined with the selected ERP software-- UF-commerce software designed for small business of invoicing business plan.

Procurement management is business enterprises of the primary link, and therefore we rationally design business processes.

According to the software, in small business enterprise procurement functions include: purchase order, purchase storage, purchase invoice management. Sale functions include quotation business, sales orders, sales out of libraries, sales invoice management. Inventory features include: sending and receiving of goods storage, stock

inventory, biomass management, a storage adjustment cost, personalized design. Financial functions include: income business processing, business processing expenses, accounting certificate processing, business transfer, report query.

Therefore, sales management business processes chart in small business enterprise is as follows Figure 4:

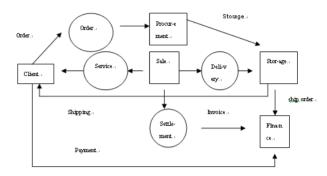


Figure 4. In small business enterprise management business process

Business enterprise management model is to complete purchases, sales transfer and income payments in business process. So Invoicing for small business enterprises in the total flow chart is as follows:

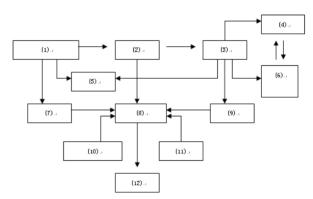


Figure 5. Invoicing program chart in small business enterprises

Note:(1)Purchasing Management; (2)Inventory Management; (3)Sales Management; (4)Customer Management; (5)Business forecast; (6)Warehousing and shipping; (7)Payment Management; (8)Financial Management; (9)Receivable Management; (10)Fixed Assets Management; (11)Salary Management; (12) Report.

5. Acknowledgement

This paper is finished under the guidance of Professor Wang Hongda and I was highly appreciated his valuable suggestions with his rigorous spirit and deep theoretical level.

References

[1] Liu Huan. The Design of Logistics ERP on the Small Trade Corporation [J]. Science Mosaic, pp. 220-221, october 2007.



- [2] CHUN-CHIN WEI, CHEN -FU CHIEN. An AHP-based approach to ERP system selection [J].Int. J. Production Economics,vol 96, pp. 47-62, 2005.
- [3] Li Juan. ERP implementation of issues study in small and middle enterprise [D]. Huaqiao University, pp20-22, 2006.
- [4] Sheu, C., Chae, B. and Yang. C.-L. National differences and ERP implementation: issues and challenges [J]. Omega, vol 32, pp361,
- May 2004.
- [5] Davison,R. Cultural Complication of ERP[J]. Communication of the ACE, vol 45,pp 109-111, July 2002..
- [6] Kai,R.Implementing. ERP Systems in China[C].In Prooceeding of 35th Hawaii International Conference on system Sience, pp 231-236,2002.