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WHO IS IN THE DRIVER'S SEAT, COMPUTERIZATION OR MANAGEMENT RENOVATION?

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Abstract

After China enters WTO, the global competition requires to fundamentally improving the performance and competitiveness of Chinese enterprises. Information technology was hoped to be in the driver seat to drive the industrialization of China. However, we believe the management renovation should be the key to accomplish the objective of raising competitiveness radically. We need to change the way of doing business and introduce the new way of doing new business. Business strategy and process should be the focus point of our drive. Information technology is a tool to help us to realize the management renovation we drive at. When using properly, information technology can enable us to implement the new way of doing business.

Pressures to Raise Competitiveness

The China's drive to industrialization has made significant progress in last two decades. China entered WTO in 2001. Most of Chinese enterprises are faced with serious competitive pressure in two areas. First, the return on investment for most Chinese enterprises is relatively low compared to their western counterparts. The asset turns rate of Chinese enterprises is 1.2 on average, while that of western enterprises is more than 10 (Chen 2002). This rather low asset turns rate results in that the return rate of investment lags far behind the national economic growth rate. For example, the return rate of investment for most large Chinese commercial banks is less than 2.5% (Chu 2002). This is rather surprising considering the fact that most Chinese commercial banks are among World 1000 enterprises. As a comparison, most US public enterprises have a return rate larger than 10% historically. Second, the product line or services provided by Chinese enterprises are thin and simple. This puts the Chinese enterprises at a competitive disadvantage because the foreign competitors can tolerant temporal loses in the business areas which are the Chinese enterprise's main business, when earning the profits that the Chinese enterprises can not. In the financial industry and other, Chinese enterprises are normally in the 10% businesses that the western enterprises are in (Chu 2002). For example, the Chinese commercial banks' main business is deposits and limited consumer loans, while the 40% of modern commercial banks' business is in the financial services such as derivatives. In addition, the thin product line and single service is more risky than rich product line and services, for the customer attentions and demand swift often and at a fast rate.

Therefore, it is imperative to raise the competitiveness of Chinese enterprises radically and significantly in the three-year period of the WTO protection. A mere few percent improvement is not enough for Chinese enterprises. Chinese enterprises need to elevate their asset turns rate from 1.2 to 10 and enrich their product lines ten folds in a short period of time in order to survive in the coming years.

Information Technology is no Silver Bullet

The current main thinking to raising the competitiveness of Chinese enterprises radically is to use information technology to computerize operations and management systems, as the "magic" way to modernize Chinese enterprises. This view is reflected

in the national industrial policy to promote the computerization of enterprises (Ren 2001). The approach is symbolized in the slogan of “using information technology to drive industrialization.” Manufacturing automation, intelligent controls, and management computerization are the main focuses of the drive to raise enterprise competitiveness. Chinese government hands out interest free loans to enterprises for ERP projects. The Chinese ERP markets grew at a 45% rate in 1999 and 2000. In 2001, the growth is at a incredible 85% (Zhang 2002).

However, we now start to see failures of ERP project in large quantity (Zhang 2002). The high-profiled ERP projects of Changhong Group, Inc., Beijing Sanlu, Inc., and Lima Corporation fall one after one and send shocking waves after waves. The empirical evident shows that the approach does not work out as expected. A large percent of ERP projects never see the day of completion and for those that do, ERP does not guarantee the improvements on the enterprise’s bottom line and finally the competitiveness. The information technology is not the silver bullet we hoped for.

Let us consider the case of Zhangjiakou Mining Machinery, Inc. (ZMM). ZMM has. ZMM is an engineering to order manufacturer with a 2/3 market share. Each order is customized for each specific customer. Its annual sales is 500 million yuans. It has an inventory of 250 million yuans and bad accounts receivables of 150 million yuans. The asset turns is about 1.2. The large inventory and bad accounts receivables are mainly the result of its low order fulfillment rate.

The introduction of ERP does not improve the company’s financial numbers. ERP cut the planning time from 2 weeks to a few minutes and reduced the planning staffs of 25 to 2. However, the 3-month manufacturing cycle is not reduced and inventory problem remains. ZMM simply uses ERP to automate its existing business process (the planning process). The old way of doing business from the age of 1950’s is not changed due to organization resistance to changes. Little has been changed in sales, procurement, design, and manufacturing departments. Even the planning can be done in minutes, the plan cycle remains as one month as that of the old days. The long planning cycle leads to a lot of uncertainties in plan execution and inventory measured by months. The CAD capability shortens the cycle time of designs. However, this capability proliferates the customized designs in an easy way due to the lack of management control. This design proliferation reduces the reuse of common parts and modular designs. Thus, the CAD tools incidentally increased the un reusable part inventory.

In sum, the computerization outcome is marginal when the information technology is used as a means of business process automation. If the business process is bad at the first place, the automation would result in an even worse situation than that of no computerization, just as shown in the design proliferation in the ZMM case.

Management Renovation is the Key

Since the information technology alone is not the solution for radical improvements of Chinese enterprises, what would we do now? We should renovate our management. The management renovation has two important aspects: strategy renovation and business process renovation (Long 2002). The strategy renovation is to rethink the nature of our business and remake strategy to do business, while the business process renovation is to change the way to do business at execution level. Hammer and Champy (1993) suggested to change the way an enterprise does business. The business process fundamentally determines the performance of an enterprise. In the case of Chinese enterprises, we need to renovate the existing business processes and introduce new processes to support new business, unlike the business process reengineering oriented in US in 1990’s.

In 1995, one of the top PC makers in China (let’s call it XYZ) has a profitability problem. It can get a gross profit of 100 yuans for each computer it manufactured based on production data. However, it lost money and the more PC it produced, the more money it lost. For a sales volume of 600 million yuans, it has an inventory of 470 million yuans. The resulting sales volume/inventory asset turns rate is 1.3. The inventory was really killing the company’s profitability, for the PC has a very short product life cycle and the price of the PC components were dropped every week. The gross profit was eaten up by the inventory. Most of XYZ’s inventory is in its distribution system. Figure 1 depicts the XYZ business process for distribution. An order is issued to a regional wholesaler from the retailer. The wholesaler, in turn, issues an aggregated order according to the optimal order size to the provincial sales office. Finally, the provincial office orders from the XYZ headquarter. Most of the 470 million inventories is scattered around the four-layer distribution system due to the whip effect of supply chain (Simchi and others 2000).

XYZ initiated a management renovation project to change the way it does distribution. It first eliminated the provincial sales offices and regional wholesalers. It asked the retailers to order directly from XYZ. Second, it required retailers at the end of each Friday to fax in a 12 demand forecast of the retailer. With this change, the inventory at the original provincial sales offices and wholesalers was totally eliminated. The inventory at the headquarter was significantly reduced because it could do a better sales

forecast based on the information from the retailers and control its internal inventory. As a result, the total inventory was cut down to 70 million yuans from original 470 million yuans. The asset turns was improved to 8.5 from 1.3. The new distribution process is depicted in Figure 2. The reason for this diametrical improvement is to reduce the whip effect using better sales forecast (trading information for inventory), even without using information technology. This example shows that the significant improvements in competitiveness can be resulted from changing the way of doing business or by renovating management.

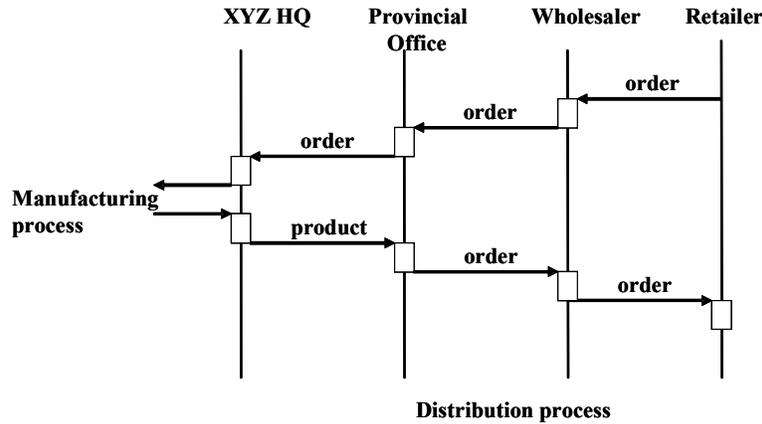


Figure 1. XYZ Business Process for Distribution

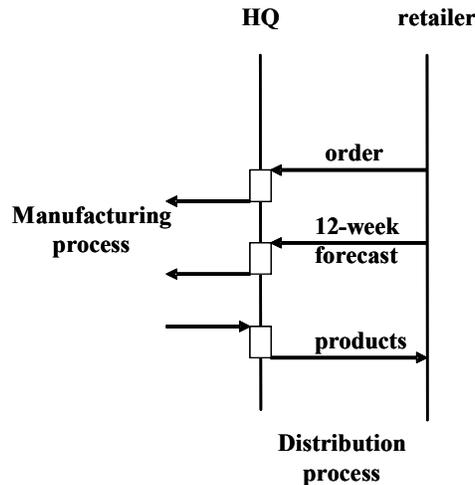


Figure 2. XYZ New Distribution Process

Information Technology Can be an Enabler of Management Renovation

Using information technology as a mere automation tool produces marginal improvement in enterprise performance. In order to achieve dramatic and radical rise in competitiveness, we need to renovate our business strategy and process. There is an effective enabler role information technology can play in business strategy renovation or new business process introductions. That is, the information technology can enable us to realize. This is very significant in China. 80-90% business areas are still unoccupied in China (Chu 2002). When Chinese enterprises enters in new business areas, we do not have to follow the past road and approach and we can do the new business in a creative way that is enabled by new tools or technologies.

In 1996, the founder of Elteno realized an opportunity to create a domestic brand of causal wears to fill a market blank. He was an art teacher and had no money. He realized it was easy to register a brand but he would need front stores to sell his brand. He

did an investigation on how the fashion industry works and found that there are 40% merchandises that are slow in retailing. In China, the slow items could not normally return to suppliers and the retailers would have heavily discounted these items to move them. The cost of discounts had to be absorbed by the retailers. The Elteno creator reasoned that if he could use a vendor managed inventory to the front stores, which would create values for retailers. The retailers would not own the inventory and they could earn money on each item they sell. He decided to use a virtual organization to create significant benefits for every stakeholders and customers. By doing this, his brand attracted a lot of franchisees to open about 300 franchised stores for Elteno. Each franchisee deposited 100K yuans for inventory. The Elteno owner uses those deposits to fund the whole operation. He contracted out the fashion design and manufacturing. He kept two departments in his virtual organization. One is the brand promotion department and one is the logistics department. He called his company a brand manager.

However, his business strategy would not be as great as he hoped if the returned merchandises are 40% as the industry average. In order to reduce the return rate, he invested 10K yuans in a simple information technology solution. He hired two programmers and developed a simple POS (point-sale-system) in one month. Each franchised store is installed with one such system. Every time a sale is made, the retail data is saved. At the end of every day, the retail data from each store were transferred to the Beijing office where he used the retail data to figure out the items that are moved fast and that are not. During the next week re-supply, he shipped about 80% with the items that are moved fast in last week and 20% in new products. In this manner, the returned merchandises were reduced from industrial average of 40% to below 10%, and this made his business profitable and successful.

Eltano was a market success story. Within one year, its sales revenue reached \$6 millions USD and \$18 millions USD in the second year. It became the banner for the whole generation of Chinese branded clothing in the Chinese market. It demonstrated how to use brand to create values for its customers, franchisees and manufacturers as well as itself, and used information technology creatively to gain a competitive edge.

Conclusions

Chinese enterprises are under fierce pressure to raise their competitiveness radically. Using information technology to automate their business processes is not the viable solution, which can give a gradual and marginal improvement. In order to improve dramatically, Chinese enterprise will have to change the way of doing business or introduce new way of doing business. That is, the management renovation is the essential driver seat to improve the enterprise performance. Information technology can be an enabler to realize the renovated management or business processes. If used properly, the results will be significant and fruitful.

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