

ERP ASP Solution in Hungary

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Abstract

The European Union is heading for an extension. The entering countries can fulfill the requirements predefined by the EU, only via an entirely modernization. Modernization must be rapid. For this reason the whole set of informational instruments should be put in. The modernization should come off in a coordinated manner, which cannot miss the methods of information technology.

Areas of modernization:

- Polity;
- Public health;
- Education;
- Modernization and increase of competitiveness of national micro, small and medium companies of low capital; viz. if they break down, then masses get unemployed;
- Alignment of co-operation between national and multi-national companies in order to assure a supplier background to multi-national companies.

Whole regions are out of production, because this problem has not been solved yet! For this reason as governments as the EU support these modernizations.

This elaboration will introduce a project for helping micro and small companies to get used to methods of Information Technology and enable them to use ERP software solutions.

1 Background considerations

As ERP systems in the World were created for application at mammoth companies, their custom implementation is only possible if quantity and quality demands are put up for them. The amount of companies like that is not too high, especially in Hungary and in surrounding countries. For some reasons, that are not discussed here, the amount of small companies is especially high. The main characteristics of these companies are:

- Weakness in capital;
- Membership in Supply Chains together with mammoth companies;
- Lack of any IT background.

Since Supply Chains are mainly supported by software solutions (for instance ERP solutions), small companies must be able to use and implement a solution themselves. Because they do not have the required capital and IT knowledge that enables it, they will fall out of Supply Chains. The basis of current solution is, that small companies need ERP solutions in order to be cooperative with bigger companies and to improve their effectiveness.

Small companies first need to have simple ERP solutions, which support only their main activities, just like finance, production and logistics. They could use a generally customized ERP system. One customization

could be used for several companies. The customization is on a provider's side (ASP - Application Service Provider), which does the administrative work and takes care of licenses. Companies do not buy an ERP system they only rent the usage. They can reach the system via web application. Besides ASP becomes also a market solution provider and a sort of "gate", or "channel" to electronic markets.

2 ASP philosophy - Tell me what I need!

Definition: *Application Service Provider offers access to applications (such as software) and related services on a rental basis via the Internet. ASP services are an important alternative, not only for smaller companies and individuals with small technology budgets, but also for larger companies as a form of outsourcing.*

Recently companies selected brands and "forced them" to give solutions for their own predefined processes. They choose well-known names in IT business then matching functionalities. For most of the companies - especially for micro and small companies - not standard, but simplified ERP solutions are required. ASPs can offer solutions against products. They don't have to differentiate themselves as many of other providers, who are more value-added resellers, then providers of complex business solutions.

According to analysis of Denzil Samuels, Senior Vice President of Qwest Cyber Solutions, trends indicate that customers are beginning to look at ASPs for answers to their business problems. The "Give me what I want!" philosophy should be replaced by "Tell me what I need!", by ASP philosophy. Additionally, the move towards integrated functionality solutions will also change the role and partnership dynamics of supply chains. As ASPs begin to become the "trusted advisor" for business and IT solutions that are easier and faster to implement, supply chains will be strong partners with clients through ASPs. ASPs will be beneficial for both supply chain members and micro companies showing willingness for joining and opening new purchasing and sales channels for them. ASPs will also need to have relationships with the right software and hardware vendors in the industry that provide the desired functionality.

Here are some benefits of ASP solutions that can increase business productivity:

- ASP can get the business to the market rapidly and easily.
- ASP is responsible to maintain the provided service. Therefore companies save money spent on administration, support, maintenance, upgrades and deployment.
- ASP offers web-based access to software, all employee can reach the same application at the same time.
- The risk of implementing a non-matching technology will be reduced. ~ ASP guarantees a dedicated technical support.
- A smaller business can reach product that normally would be too expensive.
- Companies can focus on their core business rather than IT concerns.

3 ASP solution for micro ventures

Lot of Hungarian companies are struggling in lack of source, but their primary activities are profitable. Their internal processes are not clarified; they need internal automation solutions, for instance an ERP system, on the one hand in order to organize the company itself, on the other hand to be able to join Supply Chains, to get aligned with business requirements. This market segment is unable to shoulder such an enormous investment and being honest they do not dare it. (*About reasons see: Babos, Gergely - Magyar mikrovállalatok lehetőségei az e-business felé vezető úton, (Possibilities of Hungarian micro companies heading for e-business), Technical and Economical University of Budapest, 2002.*) For them the solution can be a construction, where they need not finance a whole system, but they can rent the usage on a monthly basis.

A solution matching the requirements can be an ASP providing ERP system. This means a generally customized ERP system installed on a server, on the provider side that is accessible via Internet. An ASP needs to take care of the following requirements:

- Identification per licenses;
- Data separation per companies;
- Satisfactory bandwidth;
- Accessibility to an ERP system via web applications;
- Analogous, transparent processes.

In order to ensure good understanding and appropriate usage of this ERP system, employees of companies joining ASPs need thorough training. To ease the understanding and usage processes need to be clear and transparent. That is the reason, why the main guideline at customization is the simplicity of ERP system and application of only those functionalities that are commonly used at company side.

ASPs have to differentiate themselves - at least the offered ERP customizations - according to main corporate activities. These main activities are for instance as follows:

- Production (manufacturing);
- Service;
- Agriculture;
- Aliment industry;
- Etc.

I will focus only on production, because ERP systems support mainly manufacturing activities. A model ERP system has to come down to main functionalities of a company. These main functionality areas are as follows:

- Finance / controlling;
- Logistics;
- Production.

Logistics can be separated as move-logistics and storing- logistics, but I prefer to separate it as purchasing (incoming) logistics and sales (outgoing) logistics.

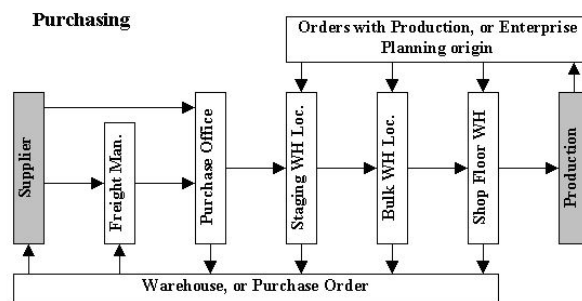


Figure 1: Purchasing

The whole operation is coordinated by transactions, by orders. Even among warehousing locations (WH Loc.) orders ensure the clear administration of goods transfer. Similarly works the method at Sales, the only difference is the sequence of steps.

Production concentrates on two basically different areas: manufacturing and process. Manufacturing is typical for assembling industry, process is used for chemical industry for instance.

Manufacturing means assembling and chopping on Shop Floor level, as I mentioned above. It also contains activities like painting, packing, etc. of course. The whole manufacturing process is administrated by To

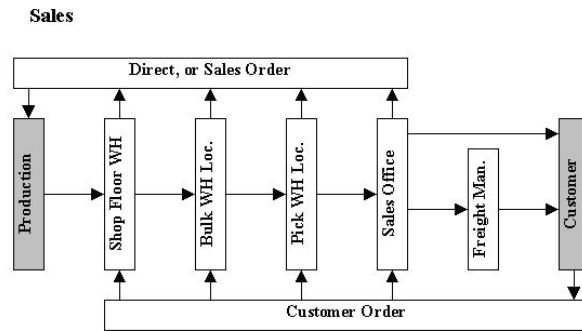


Figure 2: Sales

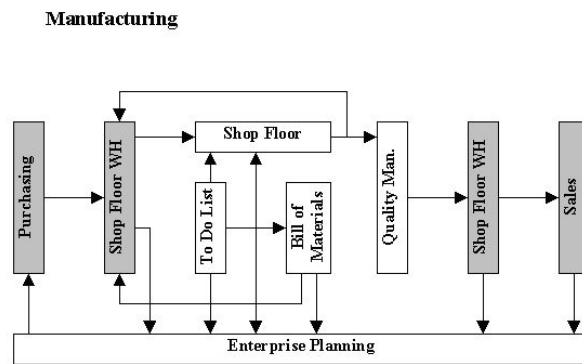


Figure 3: Manufacturing

Do List. This unit coordinates production step-by-step. Configurations are handled by Bill of Materials (BOM). Only difference between manufacturing and process is in configuration handling. For process no configuration is required, but receipts. On Shop Floor level assembling and chopping are replaced by chemical processes.

Finance and Controlling supports Production and Logistics. Each and every step in "goods-flow" has a mapping in Finance, in "money-flow". Besides, Finance can be a stand alone solution of course, but the main advantage of ERP solutions is in integrity.

Controlling draws consequences based on Cost Center, Cost Calculation and Pay Office, creates a summary according to available information.

The above mentioned models need to be supported by an ASP solution. This is a general model, and does not represent a detailed level, but the main workflow of a company heading for the usage of an ERP system through ASP needs to be similar to the models.

4 ASP Future

ASP will change some characteristics in software business. I have to mention the new way, how software vendors will sell their products. On the one hand software companies will offer direct ASP products that are mainly used via application providers, on the other hand they will become application providers themselves of their own products. In order to reach their target users they will focus on only a few market segment, they will differentiate themselves, so they will become a kind of collector of specially selected companies. They will be able to not only sell their core products, but offer additional services to companies, like supply chain management, consulting, etc. They can be the best official channel to their market environment.

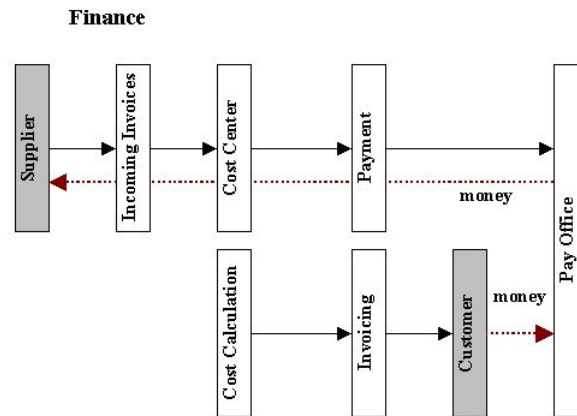


Figure 4: Finance

5 Resume

In Hungary developments have started that have visible effects on B2B (Business to Business) and B2C (Business to Customer) market. More and more IT instruments are in use to automate purchasing or even supply chain activities. As "e-business age" arrives, companies not being in possession of these technologies will be in disadvantage to partners who will have already been prepared for that.

Most of software houses match a corporate philosophy: "Give me what I want". Most of the companies do not know exactly what they need, whether their processes heading for IT support are correct, or effective enough. A new philosophy is becoming more and more popular: "Tell me what I need!". Companies do not have to be experts in automation, BPR, or IT. They can address their requests to a trusted advisor, to an ASP for instance in order to provide them with suitable solutions, that they do need.

ASPs need be somehow specialized and somehow general. How can it happen at the same time? ERP solutions I was referring to above focus on small companies. For this segment different characteristic production areas can be defined. In one area internal processes are really similar because of the corporate size. Well-structured general models will match real functionalities. Furthermore ASP can be a channel to different company groups and can represent them on bigger markets.

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