

The Supplier Relationship Management Market Trends

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Abstract—The paper introduces and discusses definitions and concepts from the supplier relationship management area. This review has the goal to provide readers with the basic conditions to understand the market mechanisms and the technological developments of the SRM market.

Further on, the work gives a picture of the actual business environment in which the SRM vendors are in, and the main trends in the field, based on the main SRM functionalities i.e. e-Procurement, e-Sourcing and Supplier Enablement, which indicates users and software providers the future technological developments and practises that will take place in this area in the next couple of years.

Keywords—Supplier Relationship Management, e-Procurement, e-Sourcing, Supplier Enablement.

I. INTRODUCTION

THE modern economical environment is gaining far-reaching complexity and competition. Companies of all sectors are facing continuous changes in the market forces due to the liberalization of trade and the impact of new communication means, improved logistics services and electronic banking systems, and other factors, that have lead to a clear increase in global competition [1],[2].

This new economical environment and the globalization process are changing the competition behavior across industries. These changes are leading to a revolution in business strategy that has been postulated by numerous strategy researchers [3].

Organizations had to rethink their way of doing business, based solely on their internal resources toward a more dynamic strategy, benefiting from their internal improved operations and closer communication with their business partners to overcome those challenges.

In resume, as Ohmae (1994) has predicted, the modern information technology is making traditional borders obsolete. Not only between nations, but especially between organizations, creating a “global village”. This phenomenon has created a new business environment in which companies compete no longer as a single legal entity, but as supply chains [4], and information has become the most valuable

asset for companies, which has to be managed and distributed to their stakeholders.

Hence, the application of information technology and the formation of electronic networks have become an important part of corporate strategy. This statement is especially true in the management of company’s relationship with their suppliers.

In this work, the focus of the analysis will be on the market and functions of the information systems that support the business processes between organizations and their suppliers i.e. Supplier Relationship Management (SRM). Here are included transaction systems such as electronic sourcing, electronic procurement and supplier enablement.

II. SUPPLIER RELATIONSHIP MANAGEMENT

The concentration strategy on key functions and expertise, which has been adopted by many leading industries, has forced the evolution of company’s procurement from an administrative and short-term driving function to a strategic activity in which firms turn their business in search for performance improvements.

Consequently, supply chain management and purchasing performance are increasingly recognized as an important determinant of a firm’s competitiveness. Therefore, in order to support the great variety of product and services purchasing processes and to integrate different business partners in an electronic network. Supplier relationship management systems were developed to coordinate and automate the process concerned with the supplier integration and communication.

Supplier relationship management is the part of the supply chain management, which deals with all aspects of the business relationship between companies and their suppliers.

SRM, on the other side, describes the business structures and processes required by companies to communicate with their suppliers, while providing methods, processes and tools to support the different phases of a direct supplier relationship, e.g. identification, evaluation, qualification, and if necessary termination [5].

Although a number of software vendors state to possess a single SRM solution the work will treat SRM as a combination of stand-alone modules/suites specialized in part of the procurement process, building a set of functionalities that enable the communication and integration of multiple channels and the automation of the purchasing and sourcing process between two or more independent organizations e.g. electronic sourcing, electronic procurement and supplier enablement.

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A. E-Sourcing

The sourcing activities take place at the beginning of the purchasing process prior to any transaction. It has its main focus on the negotiation process of direct goods and it is a critical element of the strategic purchasing. In addition, sourcing is a process to develop supplier strategy and subsequently support its execution.

The main goal of these systems is to support buyers to find the most appropriate supplier for a good, and the foreground is the negotiation phase of the purchase process in which professional buyers search for the most appropriate product source for a company based on price or any other established criterion.

Electronic auctions and electronic request for quotation (RFQ) are the two most known negotiation forms applied in e-Sourcing and are often used in the practices as a synonym of these terms.

Auction is a form of bid that has been used since the antiquity to establish the sell price through a transparent selling process of goods. At the beginning, e-auction systems had their focus exclusively on price negotiation, leaving out of their scope all other relevant negotiation factors e.g. quantity, quality, delivery time.

Nowadays, a new generation of auctions systems based on business intelligence technology allows the negotiation of multi-attribute criteria during the online auction and the continuous control of supplier performance.

The RFQ process is in some extent similar to the auction process. Thus, what is true for e-auctions can be applied also for e-RFQ. The main difference between RFQs and auctions is the lack of standardization in terms of explicit, formal rules and regulations in RFQs [6].

E-RFQ can be applied during the negotiation process of complex products and services in which extensive technical description and complex calculation are required e.g. construction project, facility management services [7]. On the other hand, e-auctions are appropriate for products which have a well defined demand in a high volatile market with a large number of suppliers e.g. commodity.

In addition to negotiation and supplier evaluation functionalities, e-Sourcing solutions should include contract management tools to provide companies with a precise overview of their contracts and commercial agreements. The main function of these tools is the centralization of contractual content and the compliance of established commercial arrangements.

B. E-Procurement

The definition of e-procurement is a reason for evident confusion in the literature and in the practices. A number of definitions describe e-procurement as a general technology that allows the purchase of supplies using the Internet.

This paper shortens this general view of e-procurement to software that enables organizations to purchase indirect and MRO goods online, automates the buying processes and centralizes all spending data. The technology has progressed from enabling simple transactions to cover broader categories

such as services procurement, as well as the post-procurement stages, such as invoicing, reconciliation and settlement [8].

This solution has its focus on the reduction of the purchase department's administrative costs, by the electronic support and automation of the operative purchasing processes.

Desktop Purchasing System has enabled companies to change their traditional centralized structures to a more decentralized one, allowing employees to realize their requisitions directly from their workplaces applying web applications, whereas companies could establish specific rights and budgets to their internal customers to place orders, their supervisors to authorize the requisition, the warehouse to acknowledge the delivery and the finance department to emit and pay the invoice.

e-Procurement solutions are adequate to support the purchase of indirect, low value and standard products. These products represent around 5% of the purchasing volume, but generate up to 80% of the total purchasing process costs of a company, 60% of the orders and 70% of the suppliers [9].

Services and complex products are currently not appropriately supported by those systems, or the electronic purchase of the former products is possible just with a high level of system customization.

The core component of a desktop purchasing system is the catalogue engine to search and select goods online, and in case the organization applies a multi supplier catalogue approach, the content management system to create and maintain the catalogue data [10]. Furthermore, the system relies on business rules and authorization mechanisms to support organizations directives and specific purchase processes.

The integration of those systems is supported by the application of standards as the Extensible Markup Language (XML). Currently, there are several data exchange formats based on XML e.g. xCBL, cXML, BMEcat [11]. On the other hand, to facilitate the electronic product information transfer, companies rely on material classification standards as eCl@ss and UNSPSC to increase transparency and reduce communication costs.

C. Supplier Enablement

Enterprise integration is undeniably a critical issue for companies in all business sectors striving to maintain a competitive edge [12]. Most of the key business players have realized that their success in their e-business activities depends on their business processes synchronization with their trade partners, by connecting their organizations directly or indirectly with the back- and front-end systems of both organizations, using an appropriate gateway to exchange commercial and marketing.

Supplier enablement is the channel that enterprises use to integrate with their trade partners and realize their e-sourcing and e-procurement activities. The two main forms in that supplier enablement takes place in companies are through the application of supplier portals and/or e-marketplaces.

A company's portal is defined as a web based application that makes available personalized content as well as the rights

to operate specific collaboration processes between heterogeneous groups [13].

In the case of supplier portals, they create the basis to connect suppliers with their buyers, with the focus on purchasing processes and the exchange of transactions data. They offer a structured and customized gateway to improve the business relations between two or more business partners.

On the other side, e-marketplace is described as a virtual online market where buyers, suppliers, distributors and sellers find and exchange information, conduct trade, and collaborate with each other via an aggregation of information portals, trading exchanges and collaboration tools [14].

It is crucial for an efficient procurement strategy that these channels are not isolated in the enterprise's intranet, but rather they should be integrated with companies' front-end and back-end systems in order to integrate their inter-processes and automate the data exchange. At the same time, it is recommended that their users have the possibility to access them anywhere, at any time, regardless of the distance and the sort of device there are using e.g. computer, laptop, Personal Digital Assistant (PDA).

In addition, supplier portals and e-marketplaces should include in their functionality spectrum, a number of features to facilitate and secure their use by company's employees e.g. Navigation and search tools, reporting and notification functions. Since the acceptance and success of those channels depend on the willingness of these employees to use these channels in their daily procurement activities

III. THE SUPPLIER RELATIONSHIP MANAGEMENT MARKET

The SRM market is in constant growth, most of the market researches in this area e.g. [15], [16], [17] shows a growth rate greater than 10% per year between the main vendors, who can be divided into two distinct classes:

- The ERP vendors, who offer their SRM system as a module of their product portfolio, which has as the main advantage the high integration capacity with the other modules of the same vendor, reducing the implementation cost and time.
- The best-of-breed providers, who are specialists on SRM systems or part of the system e.g. e-Procurement, e-Sourcing, Supplier Enablement, who offers their products to the market as an alternative to the ERP providers or concentrate their efforts in niche markets.

The market is going through a consolidation process, which will continue during the next years. This is characterized by the numerous merger and acquisition activities that have been occurring e.g. Ariba-FreeMarkets (2004), Oracle-Peoplesoft (2005), SAP-Frictionless (2006).

On the other side, a detailed analyses of the SRM functionalities shows that the market has different maturity grades and potential growth rates while comparing different features i.e. e-Procurement functions are in average much more mature than the e-Sourcing functions.

A. e-Procurement Functionalities

The e-procurement applications of the main providers have achieved already their technical maturity and their functions

can be hardly differentiated from their competitors in the market.

This finding has been shown by the later studies from the most important research institutes of the area [16], [17], [18], [19], [20], [21]. Forrester research (2005) found that the average scores for goods procurement, settlement, and process configuration are consistently strong across all vendors, averaging close to 4 (on scale of 1 to 5) with a standard deviation of less than 1.

The same research institutes found that the most competitive e-procurement providers are SAP, Oracle and Ariba, although none of them reached the highest technological level/rate, suggesting that there are still areas, which require further developments.

One of those areas is the support of more complex material groups and services, as the current protocols and standard formats e.g. BMEcat provide a solution just for a limited number of material groups, and in the case of services, because of its variety and differentiated data model, a new protocol based on configuration rules has to be developed to allow the description and price formation of the service purchased.

Furthermore, the compliance management is an issue that has not been properly addressed by the e-procurement vendors, and it is a top theme on the procurement executive agenda. Therefore, a higher integration level has to be achieved with other systems of the organization in order to converge the procurement data and even to eliminate redundant systems across the enterprise.

B. e-Sourcing Functionalities

In contrast to the e-procurement functionalities, most of the e-sourcing functionalities have still not achieved its maturity, and there is not a single provider that can be classified as a leader [22].

The market is characterized by the presence of a number of best-of-breed vendors that are rated by the research institutes as specialist in their area e.g. FreeMarktes (auctions), Emptoris (complex bid processes), I2 (Spend Management), Contracto (Contract management).

It is in this area of the supplier relationship management that most investments in research and development have been done in the last years and the consolidation process is more present.

For the next couple of years, it is expected that the new developments will still concentrate on this area, improving the current functionalities as spend and contract management. At the same time, a higher integration between the current technologies available is foreseen, especially as a result of the consolidation process through merger and acquisition as well as strategic partnerships.

At the moment, the e-Sourcing market has a huge growth potential, which can be explained by the high company's expectations on these solutions. A study from the BME & Siemens [23] showed that the majority of the enterprises expect a 10-25% process costs reduction and a 5-10% material costs reduction through the application of SRM solutions. And according to ARM Research (2005) and IDC Research (2005) there is an evidence to suggest that this growth of the SRM

market is leaded by the e-Sourcing applications rather than the relative mature e-Procurement solutions.

IV. THE SUPPLIER RELATIONSHIP MANAGEMENT TRENDS

The universal trend in the area of supplier relationship management goes towards the process cost reduction and compliance. Nowadays, the interest of the organizations is to build flexible electronic processes that support and customize their business processes, at the same time that they are able to adapt the enterprise to the constant market changes.

Therefore, for the next couple of years it is unlikely that SRM moves outside its current basis: e-Procurement, e-Sourcing and Supplier Enablement. Instead, what is expected is the consolidation of the current functionalities and practices, especially the ones that have still not achieved its maturity: business process outsourcing, contract management, service procurement, spend and supplier intelligence, process integration, among others.

A. Business Process Outsourcing (BPO)

During the last years there was a wave towards the application of service providers in the supplier relationship management market. Although earlier utilization of those services leaded to a reduction in process improvement benefits, because of workflow and integration issues.

Currently, a research from Gartner [24] showed that 42% of the European respondent and 36% of the American respondents are already using some form of procurement BPO. The delegation of IT-intensive purchasing processes to an external provider that, in turn, owns, administers and manages selected processes, based on defined and measurable performance metrics.

The factors in favor of business process outsourcing e.g. rapid deployment, lack of IT resources, access to new technology/skills and cost, are convincing supply chain managers to invest on these services and their respective integration projects rather than massive implementation and enterprise-wide deployments [17].

B. Contract Management

The benefits of contract management is gaining more and more attention from companies, given the amount of manual processes currently involved in contract negotiation and compliance procedures, there is no reason that contract management applications vendors cannot double or triple their installations over the next few years [25].

The contract management providers can offer their systems in two ways: As a part of their Sourcing-Suite or as a Standalone solution. Since companies have different requirements and processes regarding contract management, there are opportunities for both business models.

Technically speaking, contract management system has started its deployment on the buy-side with the management of supplier contracts. Nonetheless, the market should start a convergence between sell-side and buy-side contract management solutions, that should provide to companies a central document management, reports, analysis and compliance rules, based on an unique master data [26].

Enterprise are also starting to enhance the integration between contract management solutions and other sell-side and buy-side systems, such as pricing, order management, and invoicing in order to gain visibility and to prevent revenue leakage and lengthy processes [17].

C. Services Procurement

Service procurement processes are still a source of high costs to companies, and due to its complex and heterogeneous purchasing processes, few companies up to now have tried to support those processes via the application of web-based information systems.

Nonetheless, this scenario is changing, the survey "eBusiness-Barometer 2006/2007" have shown that around 70% of the industrial enterprises in Germany rated services procurement as a high or very high relevant aspect of their SRM activities.

Different from the MRO (Maintenance, Repair and Operations) materials, services procurement processes have hardly data transfer standards, and few IT vendors provide specialized tools to support this business process.

Hence, there is a need to develop electronic data transfer models and standards to foster the development and application of web-based information systems during the services negotiation and buying process between companies and their suppliers.

Some initiatives in this direction have already taken place in Germany with the research projects Services Standardization and AIR-CRAFT. Nevertheless, further developments have to be done by the IT vendors in order to build appropriate tools and interfaces to facilitate the management of service procurement, since companies are seen this area as the next frontier in their e-procurement projects.

D. Spend and Supplier Intelligence

The transparence of the purchase processes and data is a key factor for an e-procurement program success. However, currently only one in every five companies applies spend management tools to control their procurement activities [27].

On the other hand, the selection of suppliers based just on product price has leaded to numerous disadvantages to suppliers and buyers. These disadvantages have made purchasing departments to change from a price based supplier selection to a broader selection model, in which suppliers are no longer selected based solely on prices, but also in aspects such as product quality and warranty [28].

The utilization of business intelligence technology to extract and analyze possible cost savings and support the design of supplier selection/evaluation and spend saving programs in a company is a major goal of modern purchase departments.

Since most researches suggest that those systems still in its infancy and most companies have still not deployed this technology, the market of spend and supplier intelligence applications should continue its high growth rate in the next years.

The near future developments in this area should focus on reporting and analytical features as well as Key Performance

Indication (KPI) definition models. In the long run reporting tools with automatic commutation with end-user are expected.

E. Process Integration

All the trends listed above and any other development in the area of supplier relationship management should have as the main goal the complete integration of company's business processes.

It has to be noted that during the development of any suite, module or a standalone solution, the main focus should not rely on the features conception, but rather on the entire business process.

Service Oriented Architecture (SOA) is an option to facilitate this approach by providing an environment in which different information systems can be provided and integrated as services, increasing systems functionalities and process compliance.

Mr. Shai Agassi, the CEO from SAP, goes even further, and related as his and SAP's vision, the deployment of an unique and integrated business process platform in which the entire supply chain, from the purchase to sales, will take place.

"The days of buying point products are long behind us. Five years from now, customers will only buy suites. You won't purchase individual point products such as ERP, CRM, Supply Chain Management or HR applications that will ship to you as separate entities and that will end up as a collection of services that you need to manage. Customers are looking to drive a higher level of value out of their industry flavored enterprise software solutions and they are doing this through deploying application suites." [29].

V. CONCLUSION

The SRM market is constantly growing. The ERP providers e.g. SAP and Oracle, but also the "Best-of-Breed" vendors e.g. Ariba, are strongly developing their functionalities in order to be able to survive in this competitive market.

Especially in the area of strategic sourcing much investment has been done with the purpose to improve or reinforce the current developments in the area of contract management, service procurement, spend and supplier intelligence and process integration, among others.

On the other side, in the area of e-Procurement, the growth potential seems to be exhausted, and the growth expectations relatively low, when compared with the booming e-Sourcing segment of the market.

Other important trend in the SRM market is the application of business process outsourcing and SRM On Demand, which gives software vendors the possibility to offer their systems as services. First to middle size enterprises, who cannot afford the acquisition of license software, and second to big organizations, who are looking for innovative products and skills without the need to invest huge amount of capital in implementation and roll out projects.

The ERP vendors have still the advantage of their vast customer base, and the facility to integrate their SRM modules with their other systems. However, the "Best-of-Breed" providers showed better performance in specific functionalities, according to most market researches. Thus, the

ERP vendors have to catch up this technological disadvantage, or their integration capabilities will no longer secure their place in the SRM market.

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