The Impact of eProcurement Technologies on Procurement Performance: **Global Insights Across Different Industries**

eProcurement systems give organizations visibility and control over every aspect of the procurement process, including searching, sourcing, negotiations, ordering, tracking, and receipt and payment processing. Research on the impact of using a specialized eprocurement software has been conducted across many industry sectors, including construction, hospitality, and healthcare. Although a standardized method to determine the impact of the adoption of eprocurement technologies on overall company performance is yet to come, its advantages have become widely recognized. Scholarly literature reports benefits that include cost savings, shorter order cycle times, and improved communication and information flow. eProcurement systems also enable better planning and control over the procurement function and strengthen collaboration between buyers and suppliers.

This white paper enriches the discussion on the usage of eprocurement solutions by reviewing worldwide literature about the financial and organizational implications of its implementation.

Cost efficiency

Cost savings is one of the main objectives of every organization and a key driver to implementing technologies like eprocurement software. In manual procurement systems, purchasing from non-contracted vendors, known as maverick spend, tends to decrease a company's potential bargaining power. Boer and colleagues (2002) reported the case of a large Dutch transportation company that decided to implement eprocurement for maintenance, repair, and operation supplies. Based on a 'clickable'[1] purchasing spend of about €50 million, the company developed a thorough and detailed business case and analytical study of the matter. The study found that the most significant saving, about €5 million per year, would be realized by reducing maverick spend.

Another way that utilizing an eprocurement system maximizes cost savings and process efficiencies is by increasing compliance and facilitating interactions between preferred suppliers. Research into the aerospace industry indicates that potential reductions of up to 30 percent of the total price are possible when using an eprocurement system. Even more impressive, a study reported that UK public sector organizations reduced their cost-per-order from an average of £70 to around £15 after implementing eprocurement. This huge chunk of savings occurred due to a decrease in errors and inaccuracies inherent to manual processes and through increased compliance to the approved process and contracts.

Similar findings were also reported in the healthcare industry. In 2003, global pharmaceutical giant GlaxoSmithKline (GSK) saved $400 million in procuring indirect products and services. GSK estimates that it could have saved another 20 to 30 percent (between $80 and $120 million) for indirect products if it had been able to attain full compliance.

The impact of eprocurement on administrative expenses is also remarkable. Studies show that firms that use an eprocurement solution reduce total administrative costs by 66% compared to organizations using manual processes. eProcurement decreases paperwork, which has a direct impact on administration costs. The automatization of requisition generation is a significant contributor to cost reduction, which often directly impacts the organization's net income.

Furthermore, since most of the procurement process is done electronically, companies are able to cut costs through reduced staffing levels. For example, Egbu and colleagues (2003) reported that one steel provider was able to complete a multi-million-pound project with just 20 percent of the company's workforce by introducing an eprocurement system.

Altogether, these findings suggest that investment in eprocurement has a sound grounding and tremendous cost-saving potential.

[1] Here, 'clickability' is defined as the ease with which a purchase can be executed by just a few simple mouseclicks. For example, office supplies are in general clickable, whereas a service like 'moving office equipment to a new office' is not.

Shorter order cycle times

Thanks to the automation and workflow facilities of eprocurement systems, companies can expect to see order cycle times decrease dramatically when compared with manual ordering systems. Faster requisition creation, order authorizations, approvals, and order processing all contribute to an increase in time savings.

Shorter order cycles mean that buyers can receive their products and use them for strategic projects much sooner. Improved cycle time efficiency can also reduce stocking requirements, decreasing necessary inventory levels and their associated costs. Inventory reduction can also positively impact cash flow, since the money that would otherwise be tied up in inventory becomes available for other purposes.

Reduced time to source materials and reduced inventory costs are key drivers to eprocurement implementation identified in an Australian study on eprocurement adoption in general goods and services and an Irish study on eprocurement use in construction.

Improved information flow and communication

eProcurement systems facilitate an accessible and easy to follow flow of information, allowing departments to share data faster and more clearly than they would be capable of doing otherwise, minimizing communication issues and improving cooperation. Improved information flow and communication are critical for the efficient flow of money and materials within an organization. It can also help an enterprise to be coordinated with its partners and enhance dialogue with customers.

Some scholars are highlighting the impact of eprocurement on the timeliness of information availability and the openness and transparency of relevant business information, which is essential for reducing information asymmetry between people involved in the procurement process. Data accessibility facilitates the assessment of procurement performance and reduces corruption through effective reporting mechanisms and visibility.

Improved planning and control

eProcurement solutions are known to improve planning and control, as they are able to provide details of actual spend with each supplier and in each product category. Companies can strategically utilize an eprocurement system to proactively manage critical procurement data and make better purchasing decisions. This enhances efficiency and creates value not only for an organization but for their suppliers and the entire supply chain network.

eProcurement systems enable control over the purchasing process and improve management information across all purchasing areas. This study carried out by Tatsis and colleagues (2006) reinforces this assertion. The authors investigated the state and development of eprocurement in the Greek food and drink industry. One of the four case studies presented revealed that improved planning and control of the procurement process was one of the main perceived benefits of implementing an eprocurement system. In another study about the adoption of eprocurement systems in Hong Kong, over 60% of the respondents mentioned centralized control and management of procurement initiatives as critical success factors for eprocurement adoption.

Improved collaboration with suppliers

The value companies can generate by focusing only on the price of the products and services they buy is limited. Understanding that cooperation can contribute to better performance unlocks new sources of value that have long term benefits for buyers and suppliers alike.

The implementation of an eprocurement system enables enterprises to build and manage their relationships with suppliers. A good relationship and long term cooperation between the buyer and the supplier can improve the quality of products, minimize lead time, reduce costs, and improve contract compliance, helping organizations achieve competitive advantage.

Research shows that eprocurement adoption facilitates partnership relationships, information sharing, and supply chain integration practices, positively affecting procurement performance. Therefore, procurement managers who maximize the value of collaboration with suppliers will be well placed to see their organizations succeed.

Conclusions and managerial implications

Traditional procurement systems are known for their lack of prompt information and cumbersome complexity, leading to excessive errors and a waste of time and money. eProcurement systems solve these challenges by streamlining and simplifying the procurement process. The adoption of an eprocurement solution significantly improves process efficiency and supply chain management. It also reduces costs, operational tasks, and processing time.

The winners in this new economy will be those companies and business leaders that can effectively use technology to streamline, scale, and automate business operations. Thus, organization managers and decision-makers should not ask themselves whether or not they should adopt eprocurement. Instead, they should think about how best to implement it in order to obtain maximum benefits for their particular organization.

eProcurement solutions like Prendio for Biotech bring ultimate control to the entire purchasing process, delivering a rapid and dramatic return on investment. With a centralized eprocurement solution, employees can manage purchases faster, easier, and with full compliance. This means that procurement managers can take on more strategic tasks, like analyzing trends, strategic sourcing, and contract and price negotiations.

If you are interested in learning more about how Prendio can facilitate a more effective and efficient procurement process for your biopharma research organization, get in touch today by emailing info@prendio.com