Summary of Technology in Purchasing

Contents

1. Purpose pg3
2. CIPS Position pg3
3. Introduction to Technology in Purchasing pg4
4. Challenges associated with Technology in Purchasing pg5
5. The Risks pg6
6. Benefits of Technology in Purchasing or what it can help facilitate pg6
7. e-technologies pg7
8. e-procurement pg8
9. Market Place/Business Exchange pg9
10. e-sourcing pg9
11. Enterprise Resource Planning (ERP) Systems pg10
12. Tips to facilitate a successful ERP implementation pg10
13. Shared Services pg10
14. Radio Frequency Identification (RFID) pg11
15. Nano Technology pg11
16. Conclusion pg12
17. Web Links for further information pg12
Welcome to a guide on Technology in Purchasing
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1. PURPOSE
The purpose of this paper is to understand what technology is currently available to aid purchasing and how this can interact with the supply chain, internally, and externally with customers and suppliers. The intention of this paper, however, is not to explain the concept of the technology in detail but to look at an overview of the technology and provide reference to other CIPS guidance (which can be identified by references in italics throughout this document) where possible, in order to avoid repetition and to keep this document concise. Technologies as described in this paper is no substitute for the development of comprehensive and robust sector or commodity strategies. Technology only facilitates the development and delivery of a good strategy.

2. CIPS POSITION
CIPS Guides are designed to provide awareness and a level of understanding to the reader on selected topics, in this case on Technology in Purchasing. They are written for use by those with an interest in business issues in general, and purchasing and supply management (P & SM) issues in particular. This will include full and part time P & SM professionals as well as individuals interacting with P & SM activities.

CIPS Guides also include information on the contextual background to the issues, and will give a balanced opinion on issues that the reader may wish to consider. There will also be references to other sources of information.

The Guides will contain CIPS position statements, that is, CIPS’ view(s) on the guide’s subject matter. The CIPS views are arrived at via an extensive consultation with P & SM practitioners and people with expertise relevant to the subject, including working knowledge groups and the CIPS Policy Advisory Network (PAN). Following the consultation process the CIPS Council’s Key Practice Statements Group finalise the statements.

Further information is available from the CIPS website as referenced throughout the guide and the Professional Practice Team at CIPS.

CIPS is putting forward its views on Technology in Purchasing as it is having a radical effect on the ways in which purchasing and supply management is undertaken.

The growths of Technology in Purchasing facilitates significant new opportunities in purchasing and supply management, and also creates substantial threats, due to the rapidity of the change and because of its challenge to traditional purchasing and supply management functions. It is therefore CIPS’ role, in accordance with its overall mission, to:

- Support its members, and other P & SM professionals, in fully taking advantage of the opportunities arising from Technology in Purchasing
- Lead the P & SM profession in developing an understanding of Technology in Purchasing in order to meet future challenges.

It is recommended that readers download and read the e-commerce topic reference file from the Professional Resources area of www.cips.org before reading this document further.
3. INTRODUCTION TO TECHNOLOGY IN PURCHASING

Technology in purchasing is a large subject and when taken in the context of information flows in the supply chain the components that make up this subject include, but are not limited to, the following:

- e-commerce; more specifically - e-sourcing, e-procurement, e-purchasing, e-auctions, e-tender, Purchasing Cards, Purchase order systems
- Marketplaces/business exchanges
- Contract registers/databases
- Knowledge portals/supplier databases
- Business intelligence
- e-invoicing/e-payables
- ERP (Enterprise Resource Planning) systems
- MRP (Manufacturing Resource Planning)/Inventory systems
- EPOS (Electronic Point of Sale)
- Bar coding/RFID (Radio Frequency Identification)
- Nano Technology
- Intranets
- Extrarets

The need for Technology in Purchasing should not be driven by the technology itself but by the need for process improvement to meet the objectives of an organisation and its customers. P & SM professionals should view it as a positive opportunity to increase their value-add rather than as a threat.

For the procurement operation generally, early corporate adopters of e-technologies suggest a number of planned deliverables in their own business cases. These have been plotted on a standard model to provide the reader with a guide to the relevant impact and complexity of these various deliverables.

In order to determine the most appropriate sourcing and procurement technologies to use, an organisation should determine a sourcing strategy for each commodity leading to, after full analysis, the most appropriate buying and sourcing decision. This should enable the source to contract and purchase to pay processes to be selected. (For further information on selection of an e-sourcing and e-procurement provider, please refer to the e-procurement Pathfinder and Finding the right solution: A Professional guide to e-sourcing available through the bookshop).

Along with selecting the right technology, it is also important to remember that change management is a significant dependency for the success of an e-implementation. Ignoring this fact has caused many implementations to fail. Research conducted by Harvard Business Review shows that a shocking 70% of change projects fail to deliver the benefits sought. (Ref: http://www.paconsulting.com/news/bypa/2003/bypa_200307000.htm.)

Change failure can be avoided, but only if the required business outcome is consistently kept in focus. The levers to maximise effective change management are as follows:

- build a compelling case for change; driven by the business strategy and with a sound financial rationale
- engage the leaders at every level; ensuring visible sponsorship and demonstrating commitment at the highest level
- win the commitment of critical stakeholders; stakeholders need to be identified and rigorously managed
- design the solutions to deliver what is important; understanding what the business wants to achieve
- drive the programme; designing and driving the programme ruthlessly to deliver the required business outcomes (Ref: http://www.paconsulting.com/services/hr_consulting/poc_03_organization/entry_change.htm)

It is also important to consider the legal implications of trading electronically (for more information refer to the e-procurement legal aspects guide available through the bookshop).

Problems can arise in implementing new technologies, as they often do not deliver the business case promised. This frequently occurs because it is rarely implemented as part of an overall purchasing strategy. Too much emphasis can be placed on the
generation of savings from reducing processing costs; for example, it takes 30 minutes less time to generate a purchase order with a saving of 10%. Such estimates are often not realistic and do not deliver any real savings to the bottom line if the fixed costs in the process remain constant (eg number of staff) despite the time savings. Benefits really come in IT projects when users change how they work, to take advantages of the new systems.

Research has confirmed that £1.1bn of cost savings plus the equivalent of 3,300 full-time staff can be saved nationally by local authorities as a consequence of modernising procurement processes – which would lead to vital resources being made available to front-line services. (Ref: The NePP Benefits Report which can be found at: www.idea.gov.uk/knowledge/eprocurement). This highlights the contribution and difference that technology can potentially make.

This paper is intended to give a systems vision from a procurement perspective. It is important to have a systems vision and an action plan, making sure everyone realises that the final benefits will only come once the whole vision is delivered and to avoid the temptation to quit once the first couple of phases are available. It will also give some idea of the common benefits and pitfalls.

4. CHALLENGES ASSOCIATED WITH TECHNOLOGY IN PURCHASING

• Organisations frequently do not first decide their business objectives and drivers before jumping into selection of IT systems. Often they buy systems that have much more functionality than they need and hence incur unnecessary expenditure. They then also overspend on ongoing maintenance and support of an over-embellished system.

• Organisations do not spend enough time and effort upfront in selecting the right technologies and building the best business case. The business case should precede the selection of technology. (There is in some instances a withdrawal of support for e-technologies because companies who rushed in to purchase and use e-procurement tools without having a solid business case found that they did not get their anticipated return on investment).

• Organisations take a technology-only focus in implementation forgetting about the re-engineering of processes and procedures required to get the benefit.

• Much of the potential benefit is in non-cashable process improvement. These benefits are difficult to measure and prove and even more difficult to take as tangible benefit on the bottom line. Procurement and purchasing managers need to work hard to quantify benefits, eg process improvement may lead to reduction in staff, and build a convincing business
case. They themselves should be convinced commercially by the case if they are to expect others to be convinced sufficiently to commit funds to purchase new tools.

- The above can make it difficult to motivate line managers to take an interest in e-procurement and even harder to get them to force through the necessary changes in buying behaviour.
- In some cases (predominantly service orientated organisations) e-procurement technologies have only really impacted on 20% of the spend. This may be because the existing tools are not very helpful when buying many services. If a company predominantly buys services it may be better to use a hosted e-tool for occasional applications where such tools are relevant.
- Organisations do not always invest in the people resources required to make the implementation succeed.
- Uncoordinated, multiple e-initiatives derived from uncoordinated functions and “free” pilots from suppliers.
- Too much concentration on technology often detracts from proper concentration on the complete specification of the requirement, best commercial practice and high quality commercial negotiation.
- Supplier adoption and rollouts can be slow (refer to the Executive guide on ‘Supplier Adoption’ on the e-business area of the website for more information).
- e-procurement makes the requisitioning process faster, easier and cheaper. The downside is that it makes it less likely that a budget holder will make do, mend or put off the purchase until absolutely necessary. This can be somewhat countered by having spend limits and counter-signatures etc, but this obviously costs money, and the smaller the purchase, the greater (proportionately) the cost of controlling it.

5. THE RISKS
There are risks involved with implementing technology, especially if this is accessible to people outside the organisation, for example via the internet. It is essential to manage these risks, and examples of some of the obvious risks and the ways they can be managed are as follows:
- Internet access - although this is increasingly available, it might be necessary to consider those you want to reach and agree to provide a PC with internet access or make provisions to communicate with them in a different or the traditional way.
- Internet security - this can be managed with firewalls, a monitored service, encryption and secure socket layers.
- Internet and network bandwidth – this is increasingly available at low cost, but for dial up connections it might be necessary not to download but to send lengthy documents on a CD ROM.
- Data security – it is necessary to back data up and store at other locations.
- Failure of the technology supplier – contact the National Computer Centre to arrange an Escrow agreement (an Escrow agreement assures the ongoing availability of the software for your organisation).

6. BENEFITS OF TECHNOLOGY IN PURCHASING OR WHAT IT CAN HELP FACILITATE
Purchasing systems and other technologies in purchasing can provide huge benefits especially if implemented as part of an overall strategic plan such as:
- a reduction in the level of time and effort in raising a purchase order (such as a reduction in information inputting) along with a significant reduction in the number of invoices submitted and a reduction in the level of time and effort in matching and paying an invoice - this can result in a significant headcount reduction of processing clerks in the procure to pay process
- improved process efficiencies such as the elimination of unnecessary and duplicated supplier and commodity sourcing activities resulting in reduced order and process costs and improved cash flow
- collaborative working with suppliers, which can improve performance, product and costs
- accurate instantaneous information flows throughout the supply chain such as real time sales information, which help reduce stock levels as suppliers are no longer dependent solely on forecasts (for more information please refer to the How to Forecast and manage Demand Levels, available through the CIPS bookshop)
- reduction in accommodation/spatial costs to accommodate lower stock levels and less paper
- improved workflow managements, eg approval and release of orders etc in real time
- the acquisition of good demand and supply market information is of great value when developing market sector or commodity strategies. Such information can be useful in providing predictive trends or information directly on the suppliers a company deals with and opportunities for new sources of supply
- improvement and a reduction in the costs of two-way communications with suppliers can lead to business process savings
Although strategic-sourcing initiatives can result in significant cost savings these can be difficult to sustain without eSourcing tools and transactional eProcurement efficiencies to enable the delivery of savings resulting in bottom-line benefits.

- ensuring that best procurement practices are adhered to, thereby reducing or eliminating ‘maverick’ spend and maximising use of corporate procurement unit (CPU) contracts and minimising the incidences of off-contract procurement
- exercising maximum purchasing leverage to obtain the best possible prices from suppliers
- facilitation of improvements in supplier/sourcing strategies and the improvement of procurement decision-making so that whole-life costing drives supplier selection rather than just lowest-price costing
- the utilisation of prompt settlement discounts to reduce procurement costs, adjusted for negative impact on an organisation’s cash flow
- reduction of an organisation’s level of exposure to financial and other risk for late payments to suppliers
- reduction in office equipment, stationery and postage costs
- reduction in the overall cost of information technology costs

Although strategic-sourcing initiatives can result in significant cost savings these can be difficult to sustain without eSourcing tools and transactional eProcurement efficiencies to enable the delivery of savings resulting in bottom-line benefits. In order to optimise the benefits, such technology should be considered within the overall strategy of how technology can benefit the business, which should aim to improve stock levels, picking, packing, goods receipt, payment, replenishment as well as customer and supplier relationships.

There are also benefits to the Accounts Payable department when matching an invoice to an electronic order as the account codes that define which budget the goods/services should be charged to will be generated automatically to take into account the requisitioner’s department and the category of spend. It enables an automatic match between order price and quantity, invoice price and quantity, and goods received. This helps to avoid deliveries that do not match orders and payments exceeding the value of orders.

It is suggested that the most optimal way of generating real benefit from processing costs is to use the most appropriate invoice process for each expense type and thereby rationalise an organisation’s accounts payable function. A combination of automated payments, EDI/XML invoices and electronic matching against purchase orders, use of Purchasing Cards etc can all help to achieve this (Please refer to Purchasing cards and eProcurement Integration and Electronic Invoicing and Payment guidelines on the eBusiness area of the website along with the CIPS topic reference file on Corporate Purchasing Cards), if invoice processing can be moved to a shared service centre or Business Process Optimisation (BPO) organisation then cost savings can be delivered.

Some additional points to consider on the realisation of benefits from e-technologies within procurement and supply chain are that -

1) The opportunity assessment (usually stated in the business case) often does not set the appropriate baseline to measure benefits after implementation. Some reasons for this are that;
   - There is often a disconnect between what is required from the IT solution and its delivery capabilities
   - There are insufficient governance and compliance mechanisms built into ERP and/or procurement process solutions functionality

2) In line with 1, there should be an overall review of purchasing intelligence (information that comes from the specific purchasing or ERP IT systems such as spend analysis related data, eg volumes, pricing, supplier numbers and spend values, in contract spend, off-contract spend etc.) and its interface with other business systems to ensure that there is a rigorous data capture system across the whole business, again allowing for appropriate monitoring and continuous improvement.

3) There is an opportunity to capture much richer data than ever before. Think carefully about the type and detail of spend data that would enable the business, procurement and accounts payable to become more effective, both for strategic and operation purposes. This can vary significantly for different commodities and should be designed accordingly when implementing new systems and procedures.

7. E-TECHNOLOGIES

The sensible use of e-technologies within the supply chain can provide greater efficiency that leads on to tangible and intangible benefits – as described above. Some of the key critical success factors are:

- Detailed planning of process/data capture requirements
- Rigorous change management
- Supplier engagement/training and sufficient support
- Key end-user engagement/training
- a step by step pilot phase
- Detailed planning and experienced management of the implementation
- Review outcomes and as necessary review processes, more change management etc. It is a cycle not a one off process

Business intelligence is critical to a successful systems vision in the supply chain. There is data throughout the supply chain - internally and externally, that can be consolidated and used to support Key Performance Indicators (KPI’s) and opportunity analysis.
One of the great advantages of using e-portals for networking and sharing information is that there is one central repository from which to update information accessible to all users. For example, using an intranet internally can help to support the business in information sharing, policies, frameworks etc. Using an extranet can help suppliers access information such as real time sales, orders, and real time sales information.

8. E-PROCUREMENT

Implementation of an e-procurement system will require a culture change; initially there may well be resistance from users of an electronic catalogue/buying portal, for example, as they may feel they are having their supply choices taken away from them. However, it is possible to make users feel like they have enough choice through a buying portal/electronic catalogue on which to raise requisitions albeit controlled electronically and purchased against a negotiated central contract.

A point that can cause confusion when considering e-procurement is the overlap between what an e-procurement system does or should do and what a finance/purchase order system does or should do. Many financial systems help with the transactional process of raising a requisition through to payment (or what CIPS defines as e-procurement) rather than the sourcing, ie the selection of suppliers through to the award of a contract (what CIPS defines as e-sourcing) for a product or service. If a bespoke e-procurement system is implemented this may result in duplication of functionality and of files between systems.

It may be advisable to look at what functionality is offered on existing financial and purchase order systems in order to re-implement it or use it better before looking at a bespoke e-procurement system. Quite often financial systems providers do not understand complex procurement and struggle to advise how best to implement a system.

Where a front-end e-procurement application makes sense be careful not to be duplicate core functionality of your existing ERP system, for example for matching. This is a common mistake and has proved to be an expensive one in many cases.

Many things such as large contract related items are not procurable in the traditional e-procurement way such as, through a catalogue – especially in service sectors (for more information please refer to complex goods and services Best Practice Guideline on the e-business area of the website). Finance may have also classified and coded items from their perspective in conflict with procurement classification (for more information please read coding and classification and Towards a standard procurement classification for local government available under the e-business area of the website). Collaborating with finance and using existing systems to the best of their ability or re-engineering them may therefore achieve greater value.

An e-procurement project is usually more successful when it is implemented in phases – for example moving the requisitioning and approvals process from paper to a screen-based system and ensure that everybody is using it before moving on. Further, an e-procurement roll-out will encounter less resistance if consideration is given to what users will adopt the system and when, eg tackle an easy category with lots of users and then a hard category with a few users.

There is another key factor to success in e-procurement implementation, most managers at the customer and service delivery end of organisations do not perceive e-procurement as a priority. It is a process change that is disruptive at best and at worst leads to budget cuts, job losses and deskillling and removal of decision-making to the centre which may demotivate line managers who will then be reluctant to force through the necessary changes in buying behaviour.

The use of a simple and effective benefits realisation strategy and framework can change this. Experience shows that people will accept and embrace the changes needed to accrue the benefits from e-procurement when the benefits are:

- Clearly identified and made relevant to their own priorities (eg freeing up time for more important work)
- Classified and quantified, so they become tangible
- Owned by user groups as well as corporate management – that includes seeing the benefits locally as well as centrally
- Tracked and measured, ie proven

If the value proposition is made known then users will be more supportive if they understand what is in it for them.

The Office of Government Commerce (OGC) says in its guidelines on benefits realisation: “Benefits management involves monitoring for the emergence of expected policy benefits, which must have been specified previously into measurable elements”.

A suggested approach is that:

Make sure you spend enough time effort and money upfront. Balance risk with the decision
1. Develop a list of potential benefits
2. Classify these (tangible, intangible etc)
3. Quantify and prioritise these benefits
4. Specify when and how these benefits are to be delivered
5. Plan their realisation, allocating responsibilities to named individuals for delivery of the benefits (not the project deliverables)
6. Review progress and prioritise resources and actions
7. Monitor, measure, track and report the benefits
8. Establish ongoing measurement processes to track
benefit realisation after the initial project is
completed and throughout the lifecycle
(Ref: www.imaginist.co.uk)

9. MARKET PLACE/BUSINESS EXCHANGE
A market place or an exchange can be defined as follows:
“An electronic business to business procurement
marketplace is an inter-organisational information
system, probably facilitated by an independent third
party, through which multiple buyers interact with
multiple approved/preferred suppliers to accomplish
corporate purchasing activity”.
(ref: lexchange Research).

The concept was developed as organisations sought
to maximise the potential of the internet as a means of
trading with one another. It was viewed as a way of
lowering the financial barriers to e-commerce
participation, as organisations could gain benefits, such
as speed of transaction and increased automation,
without having to build their own transaction engines.

One of the struggles for companies using market
places and exchanges has been to integrate e-commerce
channels with their existing business systems and in
particular with financial applications which may result
in a lower than expected return on investment.

Another issue is gaining assurance around the
technical integrity of goods or services when one has
not previously transacted with or personally
prequalified a supplier.

10. E-SOURCING
E-sourcing is about more than just the more obvious
e-auction/e-tender (for more information please refer to
Introduction to e-Auctions; Introduction to e-tenders,
on-line auctions executive guide and all under the e-
business area of the website and the e-sourcing Topic
Reference File for a wider explanation of the subject)
applications and can include:
• supplier management – can simplify the process and
aid activities such as market appraisals and supplier
assessments, financial appraisals, prequalification
• project management and resource planning tools to
aid more complex areas of spend and purchasing
projects
• knowledge portals – portals that hold all sorts of
information about current/prospective suppliers,
services etc. Information can be entered by
employees and bought from third parties.
• contracts register/databases/tools – which can be
useful in alerting when a contract needs to be
renewed and for sharing information on current
contracts across devolved organisations. Contract
management tools can also identify quantity price
breaks and performance/service levels and supplier
performances can often be monitored.
• e-auctions can be a useful tool if used where
appropriate (eg for purchase of commodity items on
a regular basis) although the e-auction itself is only a
small part of the whole process. It is essential to
specify products requirements correctly and
conduct the auction fairly and ethically, involving
and training suppliers in the e-auction process from
the start. (For further info refer to Introduction to
eAuctions on the members only e-business area of
the website).
• e-auctions have not generally been perceived as
encouraging the development of supplier
relationships yet this was recorded as the major
objective by many of the contributors to the 1Adapt
research (please see the e-business area of the CIPS
website for a summary of the 1Adapt research).
Further the research found that most contracts are
awarded to incumbent suppliers. It appears that
auctions are not used simply to reduce the
incumbent supplier’s price - only 22% of suppliers
have won an auction solely on that basis. It can be
concluded that auctions have marginalised price
within the on-going buyer-supplier relationship, ie
the buyer and supplier can now concentrate on
contract execution.
• The next step emerging in the reverse auction
process is what is known as the optimisation
process or transformation auction. This allows
suppliers to submit item level bids on a multi line
auction. Suppliers can offer item level bids, bundled
bids, volume discounts and alternatives to the
specified product. This allows the buyer to analyse
single, dual and triple sourcing, to guarantee
suppliers a percentage share to optimise the price a
supplier can offer, to split allocations at item level
and to incorporate performance costs specific to
each supplier.
• e-sourcing suites/portals can provide significant
benefits, but simpler technologies such as email and
spreadsheets can also help achieve some of these
benefits;
• Use of email reduces the time to communicate – can
be used to issue and receive bids and to get
responses to queries bearing in mind that it may be
better to use generic rather than personal addresses
(eg. tenders@organisation.com)
• Improves efficiency - if bids are received in
electronic format they can be put straight to a bid
comparison sheet:
-Supplier management is much improved as base
data can be reanalysed by the client easily and
quickly
A shared services model can provide a strong common framework for consolidated automated agreements (catalogue and purchase/service/maintenance order management) especially where there is a high number of end users and business areas/units.

ERP vendors have been slow to develop extensive e-sourcing applications. In comparison with best of breed e-sourcing applications many would claim that they are still lagging in this area. Consideration should be given therefore to customers who have implemented an ERP system, whether to make the most of the e-sourcing application currently offered by their ERP vendor and await future developments, or to go for a best of breed application and face the costs and challenges of integrating this into existing systems.

11. ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS

ERP systems can cover an extensive range of activities and achieve high levels of automation so it is advisable to review the offerings of some of the key players in the market. Some of the available functionality may be exploited to assist the automation of sourcing, procurement, contracting and purchasing processes. For example, common issues like goods receipt and invoice receipt can be resolved via automated service/goods receipt. Invoicing processes and a supplier self-service arrangement can be set up to reduce internal resources (esp. accounts payable/receivable) workload, errors and vendor payment delays.

Specifically in the procure-to-pay process the Human Resources application of an ERP system can feed into the process. So, for example the authorisation levels and limits for ordering can be held on the HR application and does not need to be duplicated on the purchasing system. Also, the requisition to order process will not be held up in the absence of the first point for authorisation, this can be escalated up to a higher level.

There are on average 27 integration points between accounts payable and purchasing systems alone which is probably a contribution factor to the demise of many niche software vendors (in this area) and the growth of ERP. The cost of integration of niche products to existing systems can be extremely high.

It is important to think about the potential problems of contract upgrade and future costs when considering an ERP implementation. Ask upfront to look at upgrades paths – it is sometimes not possible to run certain applications on things that are not upgraded. Integration into other systems (as mentioned above) can also send costs spiralling out of control so it is very important to consider this. Roughly half the money an ERP vendor makes is made on things after initial contract so beware of hidden costs. Also be aware of what is classed as a good deal - 40% off list price is not unusual for an ERP system, so consider what actually is a good deal and what might appear to be a good deal initially.

12. TIPS TO FACILITATE A SUCCESSFUL ERP IMPLEMENTATION

Please refer also to the section Challenges associated with Technology in Purchasing on page 4 as they are equally as valid in this section.

- Have clear direction and ensure that the ERP system satisfies the business needs and processes
- Ensure there is buy-in from the highest level in the organisation before the implementation process
- Involvement and buy-in from operational management
- Clear, agreed ideal processes
- Clear communication to the user community
- Ensure an over run allowance in budget
- Ensure e-project managers can dedicate 100% of their time to the project
- Talk to other customers of ERP vendors and research key reference sites
- Consider taking gaps in the weeks scheduled for the implementation in the contract with the ERP vendor. For example, instead of 8 consecutive weeks ask for a one week break between every 2 week implementation period. A fixed price for an implementation will only allow for a set amount of time and things will inevitably come up which the business will need to sort out that will eat into the time allocated for the implementation
- Do not set an unrealistic implementation plan
- If you negotiate a fixed cost for implementation consider negotiating expenses to be inclusive within this figure
- Ensure decision makers are involved and up-to-date with progress or problems
- Involve end users in roll-out

13. SHARED SERVICES

A shared services model can provide a strong common framework for consolidated automated agreements (catalogue and purchase/service/maintenance order management) especially where there is a high number of end users and business areas/units. This arrangement requires strong communication lines back to key users.
to ensure that non-contracted spend (items purchased without going through the appropriate channels which is often called `maverick spend`) is reviewed and that agreement maintenance reflects what is actually happening in the business.

When moving to a shared services model the consolidated spend for suppliers needs to be reviewed for pricing consistency, duplication, de-proliferation of items/services and identification of non-contracted but necessary services/goods in order to provide the basis for a potential strategic sourcing activity. Ongoing maintenance is required when goods/services are revised. Close links and regular review processes between the company who has outsourced the process and the shared service centre will aid capturing and properly managing changes and will help prevent legal issues from arising.

A common initiative currently is to outsource processing functions to shared service centres, which, if managed properly, can produce significant cost savings. Although benefits are likely and would certainly be the desired result of a move to a shared service centre, there are risks in such a move. The practicalities of managing a key function such as invoice processing on an ongoing basis could create difficulties that would need to be weighed against the benefits of shared service. In this case for instance the difficulties could be:

- The invoice processing team now working to credit control driven KPIs (eg stretching the creditor ratio wider and wider) that do not necessarily fit with purchasing needs.
- Adding extra links in the communication and approval chain for invoice reconciliation, therefore risking a slow down in the process or miscommunication.
- The data included in an invoice processing area (ie spend and trends) is key to purchasing. Would a shared service be as focused on giving the purchasing manager this data in the way they want it if the relationship was more arm’s length (it is realised that this contra argument does rely on the relationship being more difficult to manage which would not necessarily be the case).
- The purchasing manager can no longer walk along the corridor to the Finance department to block the payment of a recalcitrant supplier or indeed to gee up the payment of someone who is needed and yet is “on stop”. There would be more form filling and the need for rules.

**14. RADIO FREQUENCY IDENTIFICATION (RFID)**

The technology for RFID is not an issue - it is here now in a way which is proving successful, although in a small number of applications so far. The main issue seems to be what is the business case that justifies the investment and potentially delivers some value? 

**15 NANO TECHNOLOGY**

Following on from the subject of RFID it is worth mentioning the emergence of nano technology. This term applies to any microscopic technology. This is slowly taking off, and gradually starting to affect our daily lives. Mini bar fridges, for example, in many hotel rooms now automatically know what has been taken out of them and automatically sends a bill to reception to be added to the room bill.

The impact that nano technology will have on the supply chain in future will potentially be huge and gives a new meaning to pull purchasing. For example, cars in the future will have an onboard computer that will be able to summarise what parts will need replacing when. If this information could be relayed to the specified service garage, then potentially a garage will know what it needs to order when. This information can be fed down the supply chain so suppliers are enacting upon forecasts based upon definite future demand rather than just best guess work creating significant benefits in terms of workflow, stockholding etc.
16 CONCLUSION

Focus within the purchasing function of many organisations is slowly moving from e-procurement and e-purchasing to e-sourcing and now to e-enabling service contracts management and supplier relationship management processes, where most of the spend and all of the risk lies. The technologies for doing this are emerging – this is the software that links and automates the lifecycle workflows; supplier selection; tender build; lodgement; evaluation; service level agreement (SLA) build; performance monitoring and feedback.

Whatever the technology, consider integration between solutions, getting the right information out to create the right reports, project planning and looking at the end-to-end process. A recommendation is to look at a business case for implementing technology affecting purchasing not just from a procurement perspective but also from a total business viewpoint.

It is important to remember within the purchasing function that savings come from the goods you buy and how you go about paying for them – the technology is a tool that can facilitate this in a more efficient and effective way. It is essential therefore, when building a business case, to only include monetary savings based on the percentage of cost savings between the current situation and what it is you are proposing to do differently.

Finally, the use of technologies as described in this paper is no substitute for the development of comprehensive and robust sector or commodity strategies. Technology only facilitates the development and delivery of a good strategy.

17. WEB LINKS FOR FURTHER INFORMATION

- www.ogc.gov.uk
- www.idea-knowledge.gov.uk
- www.buyitnet.org
- www.ncc.co.uk
- www.paconsulting.com
- www.imaginist.co.uk
- www.pasa.nhs.uk
- www.ebizq.net
- www.iceaw.co.uk
- www.butlergroup.com
- www.computerweekly.com