

Are your processes fit for E-commerce?

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“We have an increasingly global and fast changing market place coupled with a customer base that demands instant service of the highest quality. To continue to thrive and prosper in this environment an organisation must have the ability to cope with constant change and at the same time be innovative.” – Jeff Hall, Ceros Project Services Ltd

Introduction:

Gone are the days when a company's market share and competitive edge went unchallenged for years; your customers were loyal and remained so for many years. Today, the situation is changing dramatically and market share, competitive edge and customer loyalty may only last weeks. The availability of low cost Internet/Web technologies and the expanding use of home and portable computing, mobile phones and Web TV allows new enterprises to launch a product or service within weeks. The range of goods and services that were traditionally purchased from shops, via mail order, etc and can now also be obtained electronically include cars, travel, books, CDs, furniture, soft furnishings, insurance, banking, toys, computers, homes, groceries, wine, etc, etc. The low cost of entry makes it easy for new players to replicate your products and services in a short space of time. Technology also makes it easier to catch up with new innovations quickly. All this reduces anyone's competitive edge to a matter of weeks or months at best. To retain, grow and benefit from this fast changing, global market place an organisation must meet the following criteria:

- Have slick, fast and best quality customer service;
- Offer good value products and service;
- Provide anywhere, anytime opening hours (i.e. 24 hours x 7 days per week, globally);
- Optimise their supply chain;
- Get to market fast;
- Be innovative;
- Ensure they have a highly efficient, lowest cost, high quality business operation in support of the above.

To have any chance of meeting these criteria the company that wants to stay in business (or start up a new business) has to embrace e-commerce. However, other than new start-ups that have the advantage of a “greenfield” site, most organisations starting on the road to e-commerce are faced with two dilemmas. Do they

- a) launch a separate (from its traditional business) e-company, or does it, or
- b) incorporate an e-commerce stream into its current organisation?

Whichever route is chosen, there will be a major impact on business processes. This paper discusses this issue and provides guidance on how an organisation can transform its business processes so they are suitable for e-commerce.

Initial preparation:

Before elaborating on this, a word of explanation. E-commerce is now segmenting into two main streams, business to business (often called B2B) and business to consumer (B2C). In the case of B2B, processes are aligned to meet, typically, the internal needs of a corporation and the interactivity that corporation has within itself (ie department to department, or subsidiary to subsidiary) and with similar corporate bodies (e.g. its suppliers, its banker). This can be achieved using an extranet (i.e. a private, highly secure, Internet service only accessible to a pre-agreed, authorised users base). In the case of B2C, processes focus on the delivery of high quality, reliable and attractive interface between the business (say a bank, or retail store) and its customer base. This will typically be achieved through the company's Web site via the Internet. Because of the nature of the Internet the service will be available to any member of the public, anywhere (although it will still have high security built in to protect customer data and financial transactions between the parties). For the sake of simplicity, as the process implications for B2B and B2C are similar in principle, I have not advocated a separate approach, referring to both under the generic term of e-commerce.

Effective, reliable and high quality business processes are essential for any company to prosper – they are the engine room of an organisation. Until the advent of e-commerce, once designed and implemented, business processes tended to remain unchanged for long periods of time – except for the odd tweak caused by, for example, a change in technology, a departmental re-organisation or the very occasional merger or acquisition. E-commerce is different; it is creating a whole new way of doing business. At the very least it's a new business channel to be catered for and at the other extreme it may demand new processes *and* the re-engineering of all existing processes. However, companies must realise e-commerce is here to stay – the evidence is all around witnessed by the many Web based new start-ups and the urgency demonstrated by more long standing companies rushing to establish an e-commerce arm. Rather than worry about the cost and effort to re-align business processes – about which they really have no choice – a company should see it as a golden opportunity to re-invent itself to meet the challenges and prosper in the 21st century.

Before beginning to identify, analyse and improve existing processes (or builds new ones), there are two key tasks to complete prior to any business process analysis and re-design.

Task 1 – agree the business model:

The first task is to develop and agree a business model for your e-commerce enterprise. Traditionally, the supply chain for the provision of goods and services has involved many intermediaries (factories, warehousing, wholesalers, transport, offices, shops, agents, etc) before it reaches the customer. E-commerce will allow some of these steps in the supply chain to be removed (i.e. disintermediation). The very technological nature of e-commerce with its focus on customer facing and supplier facing technology forces a closer relationship between customers and suppliers. In simple terms, the e-commerce enterprise allows the following:

- a) A customer contacts you directly with an order;
- b) You call off the goods directly from stock held by the factory;
- c) You arrange transport from the factory direct to the customer's home;
- d) You invoice customer directly (or they pre-pay by credit/debit card).

However, it is not just this easy. Although you have shortened the supply chain you have also introduced some gaps, notably in relation to customer service. If you remove the outlets for the sale of your goods (i.e. the retail shops, agents, etc), then the customer service they provided has disappeared. You now have to provide it and it has many facets such as order and invoice processing, customer queries and complaints, delivery of goods to the customer's home or office, dealing with returned goods, producing catalogues, marketing, and so on. And don't forget you will now be a global business and this brings along many more complications, which include 24 x 7 business operations, which require servicing some remote areas of the world. Although you may wish to restrict operations within the UK, the nature of e-commerce (i.e. access to world-wide network of customers) does not lend itself to such parochial activities. Additionally, your competitors (especially the new start-ups) will probably choose to be a global player and you may have to follow suit to remain in business.

If the existing business is to continue alongside your e-commerce operation an interface will have to be built between the existing (traditional) business operation and the new e-commerce operation. Significant here is the interface between legacy technology infrastructure and new technology you plan to use. Even if your strategy is to move to a wholly e-commerce enterprise there will be a transition period during which both the old and the new will exist prior to a gradual move to the e-commerce model.

There may be significant organisational change. You may have to cater for an expanded customer support operations to service a global organisation. Marketing and sales may need a different approach. Currently, you may own branches and shops as your major outlet to customer – e-commerce may not require any (or not so many) of them. And so on.

Finally, your business model could include the intention of outsourcing certain aspects of the business, which could range from relatively simple operations such as customer deliveries, or highly complex ones like technology infrastructure.

Task 2 - establish the project team

Once the e-commerce model is agreed, the project team can be assembled. It is essential to recruit a team with the right mix of skills and knowledge. The team must include someone with a detailed knowledge of the model. However, it is also important that all members of the project team understand the model as this is key to ensuring pragmatic and efficient processes are built to support the model. Other than these critical team requirements, the following skills and knowledge should be included:

- change/programme management – to direct the overall programme,
- project management – there may be several projects within the scope of the overall programme,
- risk management – invariably projects of this importance will carry risk – all risk must be identified at the outset of the programme and mitigating actions agreed and managed (it must not be forgotten that new risks occur as progress is made and these must also be managed),
- an understanding of the way the organisation currently operates as a business and the processes that support all aspects of business operations (this includes departmental, department to department, company to subsidiaries, company to suppliers and customers and visa versa),
- business process analysis, design and re-engineering – to identify when a new or re-engineered process is required, or when a process can be removed,

- technology infrastructure services – there will be major impact on a company’s technology infrastructure (this includes telephones and call centres) – it will probably extend to supplier and customer technology infrastructure too; all of which will be often embedded as part of the business process,
- facilitation and communications – success will be largely dependent on strong facilitation to get all parties to co-operate; communications is essential to maintain an understanding by all stakeholders on progress, issues, etc,
- training – to develop a programme to familiarise everyone concerned with the new processes (including any changes to technology infrastructure) – there may be a need for separate programmes for company staff, customers and suppliers.

The e-commerce team should report to a Steering Committee to report on progress, agree the next stage and most importantly, obtain buy-in to the new e-commerce processes prior to implementation. All the above should be guided by good change management practice which I will not attempt to address in detail here. (For those interested, my article published in the Management Services journal in April 1999 – “Six Principles for Successful Change Management” provides some further useful guidance.)

Analysing current business processes:

If current processes are already documented as part of the company’s business change methodology or as a result quality programme (e.g. BS 5750), this will provide a basis for comparing what is actually done as against what is recorded in the process manual. However, some important points to be aware of here:

- a process may have become redundant and have to be removed,
- process changes may not been recorded,
- a process is no longer “fit for purpose” (i.e. it does not map to the process in practice)
- a process has been “adjusted” by staff to fit in with how they think it should be done,
- a process which should be followed in different departments is not always - in practice some/all departments have tailored it to their local requirements,
- processes that involve third parties (suppliers, customers, agents, etc.) may not be followed as documented and could be causing you problems that you are not aware of,
- third parties may not have accurately communicated changes they have made to processes of their own that interface to yours.

The above underlines the importance of thoroughly checking the official version of a process with what actually happens. The following is a list of typical processes that require analysis by any organisation embarking on an *e-commerce operation*. The secret to success is to ensure that those processes involving the customer are of the truly effective and of the highest quality. The reason for this is simple, e-commerce brings you face to face (electronically) with customers and what they see and the level of service they receive will make them decide whether to stay with you or “click-on” to one of your competitor’s sites instead.

- Ordering goods or services: There are two sorts of order. The first is when you receive an order from your customers - you may have more than one process a customer can use (phone, call-centre, letter, order form, e-mail, fax, mail order agent, etc). The second is when you place an order for goods or services to your suppliers.

- Tendering for goods and services: This is related to the ordering process too. There will be many occasions when you will bulk-buy goods and services from suppliers which involves issuing an “invitation to tender”. Visa versa, you may receive invitations to tender from a group of customers who have formed themselves into a “community” in order to reap the benefits of bulk purchase.
- Production of goods and services: The key ones here are MIS - such as information on which products and services sell best/worst, geographical location of outlets and customers and related sales figures, production planning, sales forecasting, etc.
- Research and Development: There may be processes involving the analysis of customer opinions on current goods and services, requests for improvements, new innovations (which will involve other departments such as sales, buying and production and may involve customer input tests). The evaluation of a new product or service may will probably use a process.
- Receipt of goods or services: Processing of goods or services received from your supplier. You will also have to cater for faulty, unrequired or over supplied goods/services returned to suppliers and the same for those returned by your customers.
- Delivery of good or services: Like orders, a delivery can be sent to a customer or received from one of your suppliers. In both cases there may be a tracking system to monitor at what stage a delivery is at. Deliveries can be in batches rather than satisfied in total at first delivery.
- Invoicing and payment: You will invoice your customers and receive invoices from your suppliers. There may be a variety of payment methods; an invoice followed by cheque, pre-pay via credit card, direct debit for regular payments, etc.
- Marketing and sales: All companies selling goods and services will have a marketing arm to advertise and promote their offerings; the sales force will actively seek out customers to buy them. Processes will be in place for many of the activities relating to these functions. These include interfaces with advertising agencies, interaction with the departments who produce the goods and services, etc.
- Customer Service: *The* most crucial area to understand. The analysis and translation of these processes is one of the keys to success in e-commerce. Current processes will be something on the lines of:
 - For the man in the street - outlets for your goods and services will in most cases be shops or mail order. Such outlets will invariably also deal with any customer service matter (ordering, post sales support, order chasing, complaints etc).
 - For large customers, such a big corporates, department stores, mail order catalogues, there will be a specific department to act as your official interface - some form of a buying/sales function. Again, this department will also resolve customer service issues (although pre sales and post sales may have separate support).
- Administration: There may be a number of ad hoc processes that relate to the day to day running of an organisation that require attention.

Underpinning all of the above will be technology infrastructure services largely comprising IT, telephony/call-centre operations. As processes are analysed, any use of these services will be recorded. This will include hardware, operating systems, software applications, networks, how users/customers/suppliers access the services, any specialised technology, call-centre technology, hours of operation, countries of operation, etc.

Some factors to consider:

In order to ensure current processes are analysed and recorded accurately, it is vital to involve all parties with a vested interest in the process; these will include:

- representatives from management and staff from all departments who participate in the processes,
- suppliers and any other agents involved in the processes,
- ideally, a sample of customers who may have some valuable comments regarding effectiveness of the customer facing processes (remember your e-commerce customer interface will have to be acceptable to customers so this is an ideal opportunity to obtain an insight into improvements customers' may want),
- representatives from technology infrastructure services,
- those who specified and implemented current processes (if they are not on the project team already).

When taking the above into account, the following additional factors may have relevance:

- a process may encompass world-wide operations of the organisation, its customers and suppliers,
- a process may be totally, or in part, outsourced – especially technology infrastructure and call centres,
- a process may be dependent on another and care is required to drill down all processes in order to identify and record such dependencies.

Aligning the processes to fit the e-commerce model:

Having analysed, recorded and *agreed* all current processes (including the role of supporting technology infrastructure, and obtained sanction from the Steering Committee to process, the next stage is to develop processes that are a suitable the e-commerce model you have developed. This, of course, is not a straightforward task and you may have to some compromises to the e-commerce model, more on which below. ***It should not be forgotten that processes will invariably still have to support the traditional business model as well as the new e-commerce one.*** The following concentrates on the implications of process change for e-commerce.

The most important processes to get right are those involving the customer. A move towards e-commerce is a commitment to ***highly focused customer service***. Every customer will expect to have direct, continual (i.e. 24 x 7) access to a customer support facility. You will probably be offering global service and thus may require different languages support for some foreign areas of your operations. You may require goods and services to be advertised in several languages with relevant foreign currency pricing (in Europe it will be dual priced to include the Euro and local currency). The entire supplier-customer experience will be conducted electronically (except for the physical delivery of goods/services – although services may be electronically delivered, such

as application software, music, magazines). Any imperfection in processes will be immediately obvious to customers; you will not be protected by the interface of someone serving a customer in a shop any more. Dissatisfied customers will soon take their business elsewhere – the competition is only a click (of the mouse) away. Also, as part of the wired world, consumers will be establishing their own electronic communities to share experiences, discuss and recommend products and services and, no doubt, come together to bulk-buy goods and services at discounted prices

Customers will increasingly expect personalised service; rather than being treated like one of thousands, they will look for companies who cosset them – they may well expect you to anticipate their needs (and if you don't, your competitors may).

It is vital that the interfaces used by the variety of customer access devices are attractive and easy to use (the look and feel of your site may say everything about you to the customer). Everyone who accesses your site will expect processes to be intuitive and robust for carrying out activities such as ordering, tracking delivery, delivery and payment of goods and services, returning unwanted/damaged goods, single payment but delivery to several addresses, etc. Customers will expect a combination of useful help and guidance available on a Web site and in addition, alternative human contacts through a call-centre support service. Processes dealing with marketing and sales will also require tailoring so they are closely inter-linked with the customer interface to the e-world. However, it will still be necessary to provide sales and rated into your Web site to some degree.

In addition to the processes dealing with the customer facing side of your business, there is a raft of other processes; all described above, that have to be aligned to fit your e-commerce model. The quality of the interfaces and supporting processes you build to your suppliers and to satisfy your organisation's inter-departmental requirements should be to the same standards of quality and effectiveness as those you develop for the customer.

In an ideal world you would completely re-design all processes for e-commerce use and at the same time take this golden opportunity to rectify any processes that have become ineffective over time for one reason or other. However, an organisation may not have enough time to take this idealistic approach. Because the pressure today to become an e-player is so great, a more pragmatic approach may be necessary. This means something that falls short of a complete re-design of processes but is *"fit for the purpose"* of e-commerce allowing the company entry into e-commerce as soon as possible. However, this must be viewed as a short term, stop gap approach; a plan for the gradual re-design of all processes is vital in order to obtain the maximum operational and financial benefits from e-commerce. *"Fit for the purpose"* means re-using those processes (and supporting technology) that are still suitable and redesigning (or build new processes) for those that are not suitable.

It must not be forgotten that for many organisations, even if the long-term aim is to become a total e-commerce company, there will be a need to run in parallel both a traditional business operation and an e-commerce operation. To perfect processes that satisfy both these business operations requires great skill and creativity. It may even require separate businesses (a traditional and an e-commerce) each with their own processes but with interfaces to each to cater for different customer and supplier requirements; at least until such time that customers and suppliers are content to become enveloped in the e-world. A key area that will be affected here is the use of technology as part of a process. For example, some customers will want access via a home PC, a hand held portable PC or a mobile phone; others will still want to walk in a shop or

order via mail order – all for the same goods or services. It can be seen that this will require some form of interface between the legacy technology and the new but with both wanting to access the same database containing customer details, the catalogue of goods and services, order forms, etc.

It can be seen that the design and implementation of processes that will satisfy e-commerce and the traditional way of conducting business is no easy task. What is even more of a challenge is to design them in such a way as to make it as easy as possible for the processes to be evolved towards a total e-commerce environment.

Some related issues:

Processes also involve people and culture – they can make them, shape them or break them. Although processes are increasingly moving from a manual process to a part people/technology or wholly technology based processes, people and culture (which I see as local beliefs and ways of doing things) will continue being involved. People are not just those employed by the organisation – they include customers, suppliers, and the public at large, etc. The point is that when you bring about change, it is essential that you take people with you. This means involving them in everything they should be involved in (e.g. for staff this could be a change to their job, for customers it could be a whole new way of dealing with you, for suppliers it could be a new order process, etc. etc.). Involvement will be greatly enhanced through a first class communications programme. Staff will require an excellent training programme to ensure they are well equipped to handle the new ways of doing things. There may well be value in extending training (or comprehensive help desk facilities) to customers and suppliers.

As already alluded to, a business model is essential before tackling process analysis and re-design, etc. As the e-commerce processes are developed it is essential to ensure they match the requirements of the business model. Any deviations must be resolved via the project's Steering Committee. This will include the organisational structure that supports the e-commerce model and its processes – this is a particularly important area as it involves the people side of your e-commerce and their total participation in any changes is essential for success.

In Summary:

This paper provides advice and guidance to help an organisation to transform its business processes in order to be successful in the world of e-commerce.

The move towards e-commerce is gathering pace. Linked by a vast technology infrastructure based on internet/web technologies, the world is becoming one giant wired village, open for e-commerce 24 hours a day, 7 days a week – forever. Those organisations that do not embrace this e-world will at best lose some market share – at worst they will not survive. If you are in a market that operates in this new e-world (and who isn't?), then you have no choice but to embrace the changes necessary in order to make your organisation a competitive player. Unless you are a new venture with no ties to a traditional business with its legacy processes and underlying technology, you are facing major changes to the way your business operates. Replacing or re-designing your business processes so they are fit for e-commerce is a demanding and challenging task.

Finally, although the driver for process change is e-commerce, the very fact that an organisation has to review its business processes will help it derive additional benefit by providing the opportunity overhaul those processes whose effectiveness, or need even, has been reduced over time.

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