

MILLENNIUM UPDATE

No room for complacency

By Gerrard Start and David Phillips

Retailers, as a business sector, are particularly complacent about the dangers facing them as the millennium approaches. Part of the reason for this is that retail is seen as a 'people business' – and rightly so. However, the simple fact is that computers are now all-pervasive and virtually every department of every business is dependent on them, either directly or indirectly.

All finance and accounts functions are date critical. Examples of how critical date calculations are for accounting systems are numerous; for instance, a five-year consumer credit agreement taken out in 1998 would reach its term in 2003. However, a computer could, at one extreme, calculate that the credit agreement was paid in full 95 years ago and fail to activate the direct debit. At the other extreme, it could calculate that the customer has 95 years' worth of back interest to pay. This is an oversimplified example, but demonstrates the potential dangers that exist.

Most larger retailers do not just use tills, but complete EPoS terminals that not only scan barcodes and calculate prices, but also monitor stock levels and automatically reorder products. These systems are frequently linked to internal and external warehouse facilities, so that product is automatically distributed to the shopfloor and adequate supplies of fresh stock are arranged. At the warehouse, the same system is expanded to monitor demand from individual stores and to reorder from outside suppliers and wholesalers.

Much of this activity is taken for granted, as it is transparent to the people carrying out the intermediate tasks of picking, loading and stacking products. The question that the senior management of retail organisations need to be asking is "are there systems in place that will enable the staff to continue working effectively in the event of a major system breakdown?" Many companies do have contingency plans to deal with shutdowns, but very few plans are designed to be able to sustain activity in the event of a prolonged shutdown.

There are so many areas where computer systems are in use and are taken for granted that a minor subsystem could bring other systems grinding to a halt, and it could take several weeks to identify the fault and re-establish the system. This means that all members of staff need to be aware of their individual responsibilities in the event of a major system failure.

This is only the beginning. It is not enough for a retailer to put its own house in order if its trading partners – direct suppliers, wholesalers, external haulage contractors and so on – are not compliant. It is difficult to develop a successful contingency plan for not having products on sale in the shops.

Because of the potential for commercial disruption, banks will be insisting on proof of compliance. Companies that are unable to satisfy their bank's criteria for compliance may well find that credit and overdraft facilities will be withdrawn, and very few retailers have the cash reserves to be able to circumvent this. Several major insurance companies have already issued statements to the effect that existing policies will not cover any losses caused by year 2000.

However, the news is not all bad. For those retailers that grasp the problem quickly and firmly, it can open up new horizons. New IT systems could give a retailer an extra edge in the marketplace. Takeovers or mergers that been planned but called off due to the cost of aligning IT systems could now be reassessed if major changes are needed to both parties' IT systems. It could even prove cheaper to merge and install one new system rather than having to remedy two totally different systems.

Those retailers that manage the problem successfully will be in far better shape at the beginning of the new century than their competitors that have failed to manage the change or to take advantage of the opportunities such a change could confer.

Gerrard Start and David Phillips are co-authors of *Retail and the Millennium Time Bomb*, published by Financial Times Retail and Consumer



The smartest retailers are treating e-commerce as a learning curve, believes **Gam Dias**

E-commerce, e-business, e-tailing – today's buzzwords all have the letter 'e' in common. This time the little 'e', not for Ecstasy but for 'electronic', spells out the trend that retailers will ride into the new millennium. Is 'e' merely a passing fad or is it the beginning of the end for retailing as we know it? How will e-commerce change the way consumers shop and how will it affect the way retailers do business?

If you believe the hype, customers will not move from their Internet terminals while they are sent all manner of goods purchased online; indeed they won't be able to leave the house because the roads will be congested with delivery vehicles transporting everything from computer chips to microwave fries right into the customer's mouth.

Expecting an e-commerce boom

The US Government predicts online shopping spend will be US\$365 billion (£229.6 billion) by 2000; Active Media suggested an online spend in excess of US\$20 million (£12.6 million) in 1997; Home shopping sales in the UK will be in excess of £8 billion (Key Note Reports) by 2000, while in the six months from June 1998 NOP Business forecasts a potential five-fold growth in online shoppers in the UK to £1.8 million.

Retailers are generally in experimental mode with e-commerce ventures and the smart ones are treating it as a learning exercise rather than a commercial venture. In the current e-educational environment, there are three linked elements – volume, proposition and fulfilment.

For any e-commerce venture to become financially viable it requires

Placing the customer at the centre of your business model can be a valuable source of differentiation and allow you to capitalise on your brand strengths

exceeding a threshold volume of customers. This cannot be achieved by the merchant alone as it is dependent upon the infrastructure in place – whether it be the Internet, digital TV or in-store kiosks. The retailer must decide to utilise the medium that will deliver the maximum number of customers in its target market.

Second, retailers must create a proposition that will be attractive to online customers. Early adventures in virtual retail were glorified product catalogues or a video simulation of a real store – creating no advantage over a trip to the shops.

Third, no matter how good the offer, it is useless without the retailer being able to fulfil it in terms of service quality – goods delivered in the right condition to the right place at the right time.

The proposition must provide

Delivering a promise



Extending brands online: anyone would trust M&S to deliver fresh fruit

online design tools can be provided, if it is home appliances, price comparisons and breakdown insurance can be offered online.

Fulfilment means more than home delivery – it is about the ordering and payment mechanisms, a call centre to 'talk to somebody', a complaints and returns mechanism and delivery of the 'promise' made by the online service.

These three elements are customer-centric: select the medium that the majority of customers have access to, provide an offer that is advantageous to them, then deliver the product at their convenience.

The retail model has undergone a major power shift in the 1990s and retailers are now the owners of more information about their customers – as opposed to in the 1970s and 1980s when manufacturers used market research to gain and hold the information.

Putting the customer first

The power is shifting to the customer because they now have access to more information and are more demanding – retailers have become more responsive to those demands. E-commerce increases customers'

access to information and allows them to 'vote with their feet' on purchase decisions, thereby increasing their influence on how the retail market is shaped.

Placing the customer at the centre of your business model can be a valuable source of differentiation and allow you to capitalise on your brand strengths.

Kwik Save's price promise can offer the cheapest basket by providing online comparisons of its competitors; Sainsbury's can offer information and recipes built around lifestyle articles in an online version of *The Magazine*; Marks & Spencer would be the only store I would trust to deliver fresh fruit to my doorstep. Every retailer can extend their brand online.

The good news for traditional retailers is that e-business can be complementary to store business. The challenge is to create a business that is customer-focused enough to keep new entrants from moving in and to do so profitably without adversely affecting the performance of existing stores. The successful players are already doing something about it.

Gam Dias is UK director of Armature

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EDI gets a leg up in the Internet

Gam Dias, strategic consultant at retail solutions company, Armature, outlines how IT providers should be moving towards the US retail model for business to business e-commerce and why UCCnet may be the answer

The Internet is removing barriers between organisations, both horizontally and vertically in the supply chain. This is good news for Electronic Data Interchange (EDI) which has been an uphill struggle.

The EDI movement promised businesses that they would be able to quickly and easily transfer information between systems. The provisos were that information needed to fit to a prescribed format and that the transfer was done on a proprietary network. The EDI movement worked hard to establish itself throughout the supply chain in many industries, however, the provisos upon which the standards were founded were also the major hurdles in their wide acceptance.

For a business running its own bespoke or highly customised systems meant that information had to be prepared for electronic transfer and required additional formatting by both sender and recipient and the use of a proprietary network typically meant using a Value Added Network (VAN) where costs increase according to the amount of data transferred. The fixed costs put a floor on the size of organisations that used EDI and the variable costs put a ceiling on the amount of information that was transferred. The result, a limited take-up of EDI.

The Internet is now seen as the way forward for the EDI movement, as it is both widespread and free. However, a number of new issues come into play – namely security, authenticity, confirmation of sending and receipt (non-repudiation) and reliability – critical factors in a business environment. The Uniform Code Council (UCC) in the USA has embarked upon a major initiative to address the issue of business to business commerce using the Internet, UCCnet.

UCCnet, the next generation for EDI

UCCnet is an industry initiative to develop a trading environment over the Internet, the stated objective being, 'to initiate the creation and implementation of an open industry-wide trading community to serve consumers better.' The entire project is based

around establishing an industry standard inter-business information exchange and facilitating this through defined business processes and a technology platform. It is sponsored by the UCC and is being piloted by three major US retail/wholesale chains (Supervalu, Wegmans and Kroger), three major manufacturers (Proctor & Gamble, Ralston and Frito-Lay) and supported by a technology partner (EDS) and a consultancy (AT Kearney).

Ultimately, the participants in this community will be brand manufacturers, wholesalers, and large, medium-sized and small retailers. The benefits to each of these participants are clear even for UCCnet in its most elementary form: manufacturers will not have the expense of establishing separate data exchange projects for each and every retailer; wholesalers and larger retailers will gain access to a network of manufacturers and will be

XML and UCCnet come together to enable an organisation that represents an entire industry to define and implement information standards and to lay the technology foundations upon which to build a commercial online community

able have information 'pushed' to them and to 'pull' information from the source; and the smaller and medium-sized retailers will now be able to adopt the 'information advantage' practices previously only economically feasible for larger organisations.

UCCnet is the co-ordinating body at the hub of this community – managing the membership, defining and maintaining the 'hub' technology platform and the protocols and standards for information

exchange. The principle is that each member is to continue operating its own systems in whichever format they chose and the information remains within each member's system. Through the UCCnet 'hub', any two parties will be able to exchange information in a controlled, standard and recognisable format – where the permission to share information is logged with UCCnet. UCCnet is responsible for managing security, permissions and ensuring data standards. From a data management perspective it will be the responsibility of each member to ensure that the information that they supply will be up to date and accurate – after all, it is in their own interests to do so.

XML, a technology platform to make it happen

The platform that is making this all possible is XML (Extensible Mark-up Language). Today's Internet traffic is predominantly written in HyperText Mark-up Language (HTML) – codes (that accompany each piece of text or graphic) telling browser software how to format the text on a page for presentation. This method of communicating is highly effective for 'surfing' the web – where the end-user searches out information on the web, which is then presented by the web-site in the browser's window. Using HTML, text is static. It is not automated and is not flexible. This is exemplified by web-enabled business processes that gather information over the web, and which then has to be re-keyed or cut and pasted before being passed on.

When 'webbed' applications are managed through a database, the database structure defines the meaning of the information. XML is another mark-up language (like HTML, but it allows each item of information to be accompanied by a tag specifying its nature and meaning) this is used to give meaning to information transferred over the Internet. So, for example, a manufacturer sending out information about a new product will tag this information using XML tags and when this is

received, the retailer's systems will be able to recognise not only the nature, but also the meaning of each component of the information simply by the XML tags used.

This principle allows two independent systems with different data structures to share certain elements of information without manual intervention. For today's business operating large centralised databases, this is not such a revolution. However, when this principle is applied across organisations running entirely different systems, sharing information without the need to translate the data between them is a huge step forward, but there is an overhead to this. Both parties have to agree on the definitions of the information and the XML tags that will be used to denote the information types.

This is where XML and the UCCnet project come together – enabling an organisation that represents an entire industry to define and implement information standards and to lay the technology foundations upon which to build a commercial online community, whilst recruiting other members throughout the industry. This will gain critical mass for the standards to establish themselves.

Shaping the new retailing business environment

The business implications for such a technology are far reaching. The network of suppliers and retailers and indeed any member of the retail value chain can be instantly plugged into a real-time online business community. UCCnet has created a roll-out plan to enable the industry to gain benefit from their work as fast as possible – beginning with a proof of concept project trialed by the original six pilot member organisations. This proof of concept is already in place and is producing some commendable results.

This pilot focuses on item management, which...enables...frictionless...communication between retailer and suppliers for new item information, item, maintenance, product authorisation and de-listing of product lines. The pilot will create a business case and utilise existing solution platforms to establish a working operating model. It will further develop the operating model to create an 'industrial strength' solution able to withstand very high transaction volumes.

The aggressive roll-out plan aims to recruit 70% of major US retail chains by

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the end of the first year (including Wal-Mart, Albertsons, Safeway, HEB, Ahold and Kmart) with many more US retailers to follow by the end of the second. Furthermore, the plan hopes to enlist retail information houses that are jointly developing category structures upon which UCCnet standards will be based.

The entire project incorporates many of the key factors for success in establishing a standard. The governing body is a non-profit making organisation, yet its members all have a commercial interest in its success. The project focuses on alignment of process and technology. There will be a low cost of entry to enable smaller organisations to join and gain the community benefits, found throughout the entire retail supply chain.

The time for such an industry standard infrastructure is ripe. A number of similar initiatives are already in progress and have already reported significant benefits to the participants. The Tesco Information Exchange (TIE) project (undertaken by GE Information Systems) allows Tesco to work closely with its supplier community to plan and manage the traditionally chaotic promotion process. J. Sainsbury and Somerfield are in association with EQOS systems, rolling out a collaborative planning system to manage interactions within

UCCnet will see companies working together in ways they have not dreamed of yet

their supplier networks. Meanwhile Safeway (UK) piloted its Supplier Information System back in 1997.

Before systems vendors go too far down multiple tracks in answering the need for online retailer-supplier commerce, some sort of industry standard must be established. An industry initiative that is working closely with UCCnet is the RosettaNet eConcert project. Backed by a number of key players in the technology industry, RosettaNet have created a business-to-business platform (Partner Interface Process) written in XML. Microsoft is also working towards an XML based industry solution with the BizTalk protocols and is promoting this through its Value Chain Initiative program.

Retailing, setting the model for all industries

Whichever standards are finally adopted, the UCCnet project demonstrates an important principle in business-to-business e-commerce – that is companies view their information as a source of competitive advantage and will resolutely keep their information close to them. The UCCnet project has created a 'Meta-Database Management System', which distributes data across multiple businesses, who use different systems and information architectures. This runs against the current trend of creating huge data-warehouses for single organisations, and addresses a growing need for inter-organisational processes and information exchange.

As businesses understand the potential of online trading communities they will demand systems, which allow them to join these communities. Only then will inter-organisational processes be determined and technology platforms defined. The UCCnet project has already taken six major U.S retailers, wholesalers and manufacturers some way down this path and there will be many more to follow. System vendors must now recognise an emerging standard in the retailing industry and step up to the mark in delivering a solution for an industry standard model. The trick to success is to develop systems that allow a seamless exchange of information and collaborate in shared business processes. At the same time it has to enable businesses to maintain the competitive advantage inherent in commercial information and specific business processes. ■

Making DiRECT mainstream

Customer Management

product offering product merchandising ordering & payments information & complaints

Supply Chain Logistics

make to order distribution center replenishment warehouse management delivery to customers

Information Management

ordering information financial information logistics & delivery information customer information

The systems infrastructure required to support end-to-end e-commerce

ARMATURE

The context of DIRECT

