Retail management and marketing
Bar code technology

TREEVA FENWICK:
There is absolutely no question that the internet has totally revolutionised retail. Tesco really likes so blaze a trail. Innovation is really important, creativity, use of technology. And I think in Tesco there's a real can do attitude in the company, and we're not afraid of being first to do something. So we were the first supermarket to use the internet. We're still the most profitable and I think one of the reasons for that is that instead of going out and building a whole load of warehouses, we used the infrastructure that we already had. So we looked at what we had and we thought well we've got these stores all over the UK, we'll use that for our online orders. We get around half a million online grocery orders every week. So that means we get great UK coverage because we're using our existing store base and that means we are then able to get the largest online market share. Online shoppers, we know that 62% of us in the UK are shopping online. We know that from the Tesco point of view, 1 million households are buying about a billion items every year from us. And we know that those people also come into store, so they might shop online, but quite a lot of them also might pop into store when they're passing just to top up or the other way round. So what we're seeing now is that barcode technology that we've had in store for such a long time, that people bleep through on the checkouts, we're seeing that being transferred to the customer. So now there is an app whereby on certain, certain mobile phones you can wonder round or store and you can, or you're cupboard at home and literally scan the barcode and that will automatically add the product you want, to your list.

ANDREW OSBOURNE
One of the limitations, if you want to call it a limitation of the symbol that is used for the point of sale is that it only identifies the product; there is no extra information In it. In general that's a good thing, that's the way it should work, it's much more efficient to have information in a database than to look it up by reference to the number but there are some occasions where you need to have additional information. So for example, sell by dates might be useful to scan at the point of sale, now you can't look up a sell by date against the identification number because for the same identification number there will be lots of different sell by dates. So it might be, it might be beneficial to be able to scan that, that sell by date so that you can for example prevent selling out of date stock, so that you can perhaps offer discount as an item is coming towards the end of its life. And equally you could put a serial number in addition to the number, to the barcode. And that might be relevant for example in electronics for warranty management. So we are introducing a new symbol for point of sale use, and it's the first time a new symbol has been introduced since the start of the system for point of sale use. It's called databar and that does enable extra information to be encoded in a point of sale symbol. The key point about the symbol that was developed for the point of sale is that it's what we call omnidirectional, so you don't have to line the product across the scanner. Clearly that important for checkout efficiency because you don't want queues building up while the checkout operator tries to find which angle to pull the symbol across.

BARBARA WILSON:
I think the internet has totally changed shopping; it's also changed people's habits of buying. So if a retailer is looking to buy brands for example, there's now online streaming from catwalk shows, so as a catwalk show is going on, a retailer can watch the online streaming and then they can buy immediately from a digital showroom, so there needn't be any time lag, you needn't buy through an agent. What is happening now and what is going to be more and more the case is, say you have a department store like _____ whose wants to buy London designers, they watch the catwalk shows online, they go to the digital salesroom and they buy immediately, place their orders, within hours of the catwalk show. So the internet in that sense is going to really speed up how fashion is presented globally.

NIALL O'KEEFE:
I think the benefits the internet has bought to retailing Is one, it gives an incredible response rate, you put a piece of promotional activity into the market place and you can find out instantly whether it's going to work, whether there's consumer demand. I think it means that with a store like Currys and PCWorld, you can have a much greater range available on the internet. You don't have to have everything available in every store; you can order it on the internet and get it delivered with Currys and PCWorld the next day if you want to. So it's very immediate which can be very useful for customers and I think the way that we see customers using it is that they use it either you see customers coming into store to research, try out a 3D television, try an look at the colour of a computer. Whatever it may be, and then go home about buy it online if it's convenient or you'll find people doing it the other way, they'll do all of their research on the internet but they'll come into the store because they want instant gratification, they want to walk out immediately with the product in the back of their car or in their handbag, whatever it might be, so they can enjoy it immediately.

TREEVA FENWICK:
From a supply point of view as well, technology has really revolutionised things, for example our best selling product is bananas and what we're looking at, at the moment is a system whereby if bananas haven't gone through the till for say a couple of minutes, then we might know that there is an issue in that the stock might not be out on the floor, on the store floor. So we've got all sorts of systems in place to make sure the actual produce is there available for the customer and if the customer is unable to buy something so we're not seeing through the tills, then we need to know, do something about it and get the stock in from the back, that's one example of technology. Another one is when the lorries are bringing things to the store, we've got a much much more efficient system now, because we're trying to reduce our carbon and we carbon and we want to become a 0 carbon business by 2050, we're making sure that each journey, the lorries are never empty so when they go they are full, when they come back they might be full of recycling or whatever it might be, but when they are on their way to a store, they literally cross a virtual line and once a lorry crosses that line then all the products in the lorry will be transferred onto the database so the store can see what stock they, they are about to have imminently.

THEO PAPHITIS:
Whether it's the mechanics of distribution, the data capture, the till, or the e-commerce internet side of it, it's all technology. Technology is stripping us all bare.