IMPROVING STORE SYSTEMS' EFFICIENCY THROUGH THE USE OF MOBILE DEVICES

The use of mobile devices has long been commonplace in retail stores across the globe. A recent survey by AMR Research/Gartner concluded that mobile store technologies will cover 72% of all retail locations during this year. Most significantly, the report added that the average number of mobile devices per store will grow from 4 to 16. In the UK, very few of the leading 200 retailers do not use any form of mobile device in their stores.

The benefits of using such devices in store have become simply far too compelling for retailers not to invest. The efficiency improvements and costs savings always result in an extremely rapid Return on Investment (ROI). Coupled with the need to offer an improved customer shopping experience to stay head of the competition, the arguments for investing in mobile technology are quite overwhelming.

The purpose of this White Paper is to explore the main drivers for this explosion of mobile technology and to provide a summary outline of the primary benefits from the retailers' perspective.

Background

In a fiercely competitive landscape, retailers have been long driven to make every penny count, in a never ending quest to reduce costs and increase margins. Whatever the store environment, the same challenge persists, namely to maintain and manage stock to the optimum level. Since the introduction of commercial bar coding in the 1970s, retail items have long carried a globally unique number to track each item at either consumer or traded unit level. The first deployment of item tracking came in the form of installing scanners to read bar codes at the Point of Sale. This produced immediate productivity and efficiency gains by dramatically speeding up the checkout process, substantially reducing errors and providing an accurate picture of inventory.

These same speed and accuracy benefits apply when bar code scanning is integrated within a mobile device. Quickly after the first wave of the introduction of POS scanners, the benefits of item tracking were translated to track goods-in movements, perpetual inventory and replenishment by installing mobile devices with built in bar code scanners (for brevity we will refer to these as HHTs hereafter).

HHTs started to appear in the retail store environment as early as the 1970s. Most retailers in the UK are now on their second, third or even fourth generation of mobile device. The HHT is regarded as a mission critical tool which occupies a place at the heart of most progressive retailers' store systems' strategy.

The proliferation of mobile devices has been greatly aided by the increasing affordability of associated technologies such as wireless networking. The cost of high speed wireless Access Points (APs) and associated infrastructure have tumbled such that this technology is now not only deployed in most retail stores around the world but also in people's homes. This means that the wireless store is now the norm,

with real time data further improving efficiency and reducing redesign costs through liberating the POS from cabled communications' infrastructure.

At the same time, standardisation of Operating Systems and Wireless Local Area Networks (WLAN), miniaturisation and cross component usage (from mass market smart phones) have all combined to see the cost of HHTs reduce to such a level where the ROI is now measured in months rather than years. Today's HHTs have evolved from the cumbersome "brick on a stick" to truly pocketable devices performing a variety of functions from bar code and image data capture right up to voice communications.

The decreasing costs of Wide Area Networking (WAN) has also seen HHTs now start to be used within retail stores where it is not possible to use WLANs due to security considerations. A prime example is concessions where the franchisee is not allowed to access a department store's WLAN. Also at retail locations located at airports where security restrictions limit the use of WLANs. In both cases, GPRS/3G HHTs are used instead to transmit data wirelessly.

Colin Pike (Country Manager Datalogic Mobile UK) has commented: "Despite the economic downturn of 2008/9, investment in HHTs has remained incredibly robust in the retail sector. In fact, we actually saw a dramatic growth in CapEx spend for our own HHTs during the recession of 2009 fuelled primarily by the need to improve store systems efficiency."

Main areas where HHTs improve efficiency of store staff

STOCK MANAGEMENT

This is the main application area where HHTs are initially deployed. Efficiencies derive from the ability to quickly book in stock upon arrival at the dock, into the back office area and then out to the front of store. In turn, this helps to ensure there are no stock out positions ensuring increased sales and improved stock turn rates. According to a Grocery Manufacturers Association study 47% of out of stock situations are created by forecasting and inadequate store ordering. The growth of multichannel retailing has dictated that retailers become increasingly customer centric. HHTs provide a vital tool to respond swiftly to demand driven retailing.

This ability to build up a picture of transactions enables retailers to identify the best selling products and the slow movers, reducing wastage. For example, store managers can scan a wall fixture and see which lines are selling well with the ability for that store to move fast-moving lines to the front of a store and slower lines to the back, optimising each individual store to maximise their sales.

The whole supply chain process runs smoothly aided by the use of HHTs. Returns and inter-store transfers can be managed far more efficiently and effectively. Electronic orders can be generated accurately and automatically based on real time sales forecasting data. Ultimately, HHTs deliver reduced shrinkage (shrinkage accounts for 17% as a proportion of profits on average according to the British Retail Consortium).

PRICE MANAGEMENT

The pace of competitive activity dictates that retailers need to constantly adjust prices in the form of promotions and markdowns, and other Reduced To Clear activity. Use of HHTs speed up this process by eliminating time spent verifying prices against cumbersome computer generated lists, not to mention the cost (and environmental) savings of eliminating paper.

Wireless enabled HHTs allow store operators to conduct shelf edge verification and audit prices in real time and to take immediate remedial action in the case of price discrepancy, further safeguarding retailers' margins by driving out price errors. Wireless portable printers are often used in conjunction with HHTs for on the spot production of price markdown labels.

PROMOTIONS MANAGEMENT

HHTs provide the ideal mechanism to monitor shifting buying behaviour. In turn, this can be used to identify seasonal or other trends. Ultimately, this arms store managers with the necessary information to develop and extend their promotional plans.

CUSTOMER SERVICE AND ASSISTED SALES

With the growth of both online and clicks and mortar business, it becomes even more vital that traditional retailers provide improved customer service. With the profusion of online comparison

services and digital data, consumers are now much better informed and have come to expect a much superior shopping experience when they venture out into the store. HHTs add huge value to improving service levels as they truly empower each store operator. In real time, they can provide an immediate answer on stock location and guide the customer through their decision making process, providing advice on complementary products or alternatives (either products or size/colour options). With the integration of chip and pin readers, the entire transaction can be conducted with the HHT making mobile POS a reality.

AUDIT STAFF ACTIVITY

By logging on to an HHT it is possible to develop a good profile of an operator's typical working day. In addition to boosting their overall productivity, this enables managers to identify the effectiveness of existing processes and functions with a view to remodelling and modifying to gain greater incremental productivity.

Effective merchandising management is key to optimising both sales and stock. Many retailers are now regularly distributing planograms to the HHT to ensure that products are being placed correctly and to maximise sales potential to every square foot. Modern HHTs typically feature high resolution colour displays to accurately represent display layouts. Inbuilt cameras also allow a photographic record to be kept for verification.

TASK MANAGEMENT

Form filling has spread into every corner of retail in recent years fuelled by need to regularly monitor compliance. Regular checks are now required for health safety, cleanliness, and security – notably the Payment Card Industry Data Security Standards. Forms can most efficiently be completed directly to an HHT and transmitted wired or wirelessly to HQ. HHTs typically capture such data input via a touch button or a tick box with the user electronically signing the touch screen to register. This eliminates paper, reduces costs in their processing and eliminates errors associated with difficult to decipher handwriting.

DIRECT STORE DELIVERY

HHTs greatly facilitate online orders to be picked at store level and delivered locally. This reduces delivery costs, improves stock turn rates and reduces logistics costs, as separate DC operations do not need to be managed to cater for online sales. Some retailers are further using their high street stores as street stores as their fulfilment centres by processing the order at one branch (for out of stock items) and delivering from another by courier.

VOICE COMMS

Walkie-Talkies have long been deployed to facilitate in-store communications from checkout to shop floor to back of office. Today's HHTs are most often voice enabled, meaning that voice calls over a secure Wireless LAN infrastructure can be made. As Voice Over IP (VOIP) calls can be made either in store, inter-store and/or to HQ, existing WLANs can be used eliminating the additional costs associated with dedicated Walkie-Talkie devices. Voice recognition can also be used for hands free picking. Such multi-modal usage of HHTs further enhances their ROI.

KEEPING STORE MANAGERS CONNECTED

Running enterprise applications such as Outlook on an HHT, not only make store managers more productive, but also allow them to spend more time on the selling floor. The ability to remain constantly connected (with immediate access to their e-mail) whilst also having access to all the functionality of the store operators described above, provides very powerful operational performance benefits.

Self shopping and improving the customer experience

A survey conducted in the UK by Barclays/Barclaycard (published 4 August, 2010) revealed that two fifths of consumers refuse to queue for longer than two minutes and two-thirds (68%) regularly abandon purchases completely. Half (51%) of the UK shoppers surveyed decide not to enter a store if they spot a queue.

In recent years, Self Shopping is one of the largest growth areas in food, cash & carry and DIY stores. Such systems are built around giving customers access to a highly customised HHT unlocked by using their loyalty card. Items are scanned directly into the trolley eliminating unloading and repacking.

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The latest Self Shopping solutions allow for push pull marketing messages to be sent directly to the customer in a controlled store environment and relevant to their purchasing profile. By reducing queuing times and alerting customers to promotions of interest, the customer satisfaction experience is greatly improved.

For the retailer, basket values are increased, loyalty levels improved and incremental revenue gained especially from increased impulse (and other types of) purchases. Savings also result from being able to reduce the number of checkouts to make way for more merchandise or alternative revenue streams such as coffee shops or other allied services.

About Datalogic

Datalogic is a market leading manufacturer of bar code based technology for the retail sector. The first commercial bar code to be scanned was a stick of Wrigley's gum in Ohio back in 1974 using a Datalogic bi-optic laser scanner. Today, Datalogic scanners generate 2.3 billion scan lines each second of every day around the world.

In the store, Datalogic Mobile HHTs are installed world wide via a partner network across most store types including grocery (from hypermarkets to convenience stores), fashion/footwear, department stores, pharmacy, wholesale/cash and carry, petrol forecourt, entertainment, cosmetics, furniture, giftware and many other general merchandise categories. Carrefour, Europe's largest retailer, has deployed Datalogic Mobile HHTs at stores in over 30 countries since 2004.

Leading retailers such as Auchan, Casino and Co-op have invested in Datalogic Mobile's revolutionary "ShopEvolution" Self Shopping System.

Datalogic Mobile also manufactures purpose built HHTs, PDAs and Vehicle Mounted terminals for use in the retail supply chain. These are aimed at applications within the DC and the growing home delivery market. At all times, Datalogic works very closely with the retail sector's leading system integrators to consult, analyse, recommend and deliver best of breed solutions built around innovative mobile technology.