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The industry is also slow to switch to computerized checkout systems because only about two-thirds of all items in supermarkets have a Universal Product Code, and that doesn't include fresh meat and produce.

At the beginning of the UPC program there were at least 15 manufacturers of electronic checkout equipment. Now there are about 6. Industry thought computerized checkout systems were going to be installed much faster than they have been. The sale of electronic cash registers continues unabated, but many retailers are still not investing in scanners. They find the electronic cash registers fast, accurate, and able to provide substantial record-keeping information. A similar comment is that scanning is for the future. However, firms now involved in scanning tests report enthusiastically on increased efficiency, accuracy, and inventory control.

Although it's a slow, costly process, some industry spokesmen predict that in 10 years the computerized checkout scanner will be common in high-volume stores. In the meantime, there seems to be a need for more consumer education on the electronic scanner checkout system. Although more than half of the respondents in a 1977 study were able to identify the UPC code symbol, most of the consumers interviewed said they didn't know what UPC was all about. Little has been done to develop a positive consumer education program because efforts have been concentrated on reaction to consumer advocate's charges. If consumers understand the system, perhaps they will be more willing to accept it.
Computerized Grocery Checkout—How Does It Work?

Prepared by Velma Seat, Extension Marketing Specialist, Oregon State University

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The Universal Product Code (UPC) represents the first step toward a fully electronic cash register system. In 1973, the grocery industry began using the UPC system as a method of marking food items. A UPC symbol consists of ten digits which can be attached to the container wrapping of most food items. The number under the UPC code is unique to each item. The scanner, a device in the checkout lane, reads the UPC code and the computer calculates the price.

The UPC code consists of a series of black bars and spaces of varying widths. It is a series of black bars and spaces of varying widths. It is a bar code symbol. The beam does not affect food or packages. The laser beam is used for small items like candy and gum so it doesn't detract from the package design.

The computer reads the bar code symbol and translates the information into a digital form. The computer performs the following tasks: (1) verifies the price; (2) calculates the tax; (3) totals the purchase; (4) prints the receipt, which contains a wide range of information, including the items purchased, the prices, the total cost, and the customer's account number for credit purchases.

When the customer has finished shopping, he must go through the checkout lane where the cashier enters the entire check on the computer. After the purchase is entered, the cash register displays the total amount due. The customer pays the cashier, who then gives change and a receipt.

With a cash register, the customer is aware of the price of each item. If he wishes to compare prices, he must visually check each item. If he wishes to check out with cash, he must wait in line. If he wishes to pay by check, he must bring his checkbook and fill out a check. If he wishes to charge his purchase, he must sign a charge slip. The computer does all of this automatically.

In the checkout lane, a scanner is used to read the UPC code symbol on each item. The scanner is a small hand-held device that emits a laser beam. The scanner transmits the UPC code symbol to the computer where the computer performs the following tasks: (1) verifies the price; (2) calculates the tax; (3) totals the purchase; (4) prints the receipt, which contains a wide range of information, including the items purchased, the prices, the total cost, and the customer's account number for credit purchases.

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The computerized checkout system promises to improve several areas of the checkout process: (1) greater efficiency and economy for both consumers and the food industry. Consumer advantages include: (1) a significant reduction in checkout lane congestion and the shorter lines at check stands. Wagner's Supermarket in Bend, Oregon, reports that their checkout productivity has jumped 50 percent since the implementation of the checkout system. (2) a greater degree of accuracy in ring-up items. Because the price code does not have to be scanned optically and recorded, there is less opportunity for error. The error rate is 2 percent. (3) improved customer service. The data supplied by the new electronic system will help schedule checkout personnel in accord with customer traffic. It will also lessen the chance of advertised items being out of stock. (4) the customer will receive a more accurate and detailed sales receipt.

Computerized checkout will make for ease in check cashing. A UPC computer can handle 34,000 check-cashing symbols per hour. (a savings of about $1 per hour). The company attributes

4) Improved customer service. The data supplied by the new electronic system will help schedule checkout personnel in accord with customer traffic. It will also lessen the chance of advertised items being out of stock. (4) the customer will receive a more accurate and detailed sales receipt.

For the first 4 months after the scanner was installed, Holiday Foods in Seattle, which has scanning equipment at four supermarkets. Currently, the company is not price marking individual items. Customers accept the price that is charged at the click cash register.

Several reasons account for Holiday Foods' success. The most important of these is the easy-to-read, easy-to-use, easy-to-maintain system. The company attributes

2) A significant reduction in checkout lane congestion and the shorter lines at check stands. Wagner's Supermarket in Bend, Oregon, reports that their checkout productivity has jumped 50 percent since the implementation of the checkout system. (2) a greater degree of accuracy in ring-up items. Because the price code does not have to be scanned optically and recorded, there is less opportunity for error. The error rate is 2 percent. (3) improved customer service. The data supplied by the new electronic system will help schedule checkout personnel in accord with customer traffic. It will also lessen the chance of advertised items being out of stock. (4) the customer will receive a more accurate and detailed sales receipt.

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