Going forward by looking back: How technology can improve your food service operations

A Touchless Food System Project

Funded By HEERF

McHenry County College

Overview

- **Looking back on automat operations**
- **Importance of Food Service**
- **Issues Related to Food Service**
- **Layout**
- **Vending Machine(s)**
  - **Training Video**
- **Payment Options**
- **Other Advantages**

Looking Back to the Automat

- **1st appearance in Berlin 1895**

- **In 1902, Philadelphia-based Joseph Horn and Frank Hardart opened their first Automat named Horn and Hardart**

- **By the 1950s, Horn and Hardart operated over 100 locations in New York City alone.**
  - **800,000 people ate at a Horn and Hardart Automat each day**
  - **At the time, it was the world's largest restaurant chain.**

The interior of Horn & Hardart's last remaining Automat, on 42nd Street in New York City.
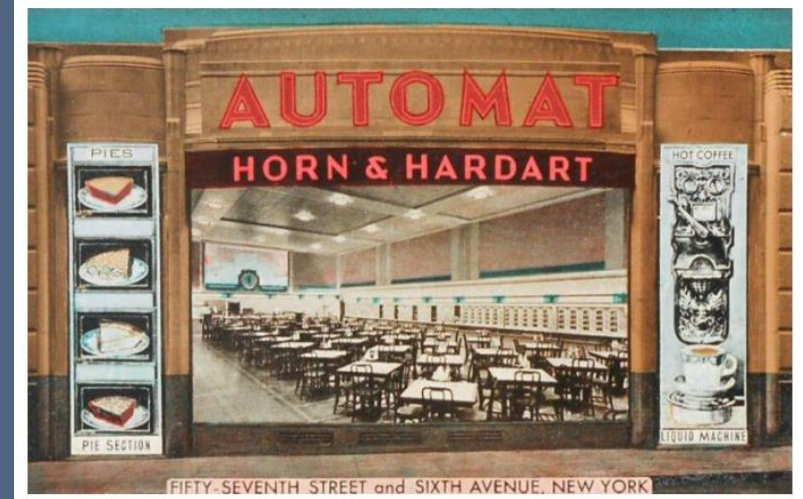R. KRUBNER/CLASSICSTOCK/GETTY IMAGES

A postcard advertises a Horn and Hardart location on 57th Street in Manhattan.
Horn & Hardart/Wikimedia Commons

Getty Images
An Automat offered an entire meal complete with an entree and sides for just 25 cents.

Library Company of Philadelphia/Wikimedia Commons
By the 1950s, cafeteria-style restaurants with coin-operated vendors like this were all the rage.

Importance of Food Service

- **Food Insecurities**
  - **Defined as a lack of consistent access to enough food for an active, healthy lifestyle**
  - **Prior to COVID-19, roughly 10.5% of US Households or 35 million Americans were food insecure.**
    - **30% of all college students experienced food insecurity at one point**
    - **38% at two-year college**
    - **29% at four-year colleges**
- **Having food on campus is important to student success, retention, and persistence**
  - **Connectivity**
  - **Support**
  - **Going off campus, student may not return and lose out on these opportunities**
    - **…[one] study suggest[s] that providing non-academic resources to low-income students may serve to equalize the chances of being retained or persisting**

Issues Facing Food Service

- **Serving students/employees after closing hours**
  - Need better food than typical snacks offered in conventional vending machines
- **Post COVID staffing issues**
  - Originally our operations were due to close at 4pm
  - Difficulty in staffing forced a 2pm closure
- **Profitability**
  - Labor costs drive profitability
  - Expectations of prices to be low or even subsidized prevents cost recovery plus margin
  - Even if outsourced, colleges have to subsidize either directly (payment or guaranteed margin) or indirectly (waste, electricity, equipment, maintenance, custodial, etc.)

From This...To....

- **Used during COVID and after service hours**
- **No Staff or Support**
- **Small and limited selection**
- **Cash Only...no change back**
- **Honor System***

*Honor System to a degree, that safe was bolted to the table, if they wanted it, they had to take the table with them as well.

*Also, if someone took without paying it was also under surveillance.*

...This

- **Open 24/7**
- **Cold food stocked in morning when café opens and periodically during the day**
- **Hot food stocked after café closes to extend service**
- **Designed to service evening campus community**
- **Take pressure off cashier lines for single items during peak times**
- **Partnered with DMVI**
- **Added digital menu boards throughout main café as part of the project**

Sign to be installed here

DMVI
Digital Media Vending International LLC

Layout

- **Non -structural renovation**

- **2 security gates installed**

- **Minimal footprint**

- **Used under-utilized café space**

- **~$65k**
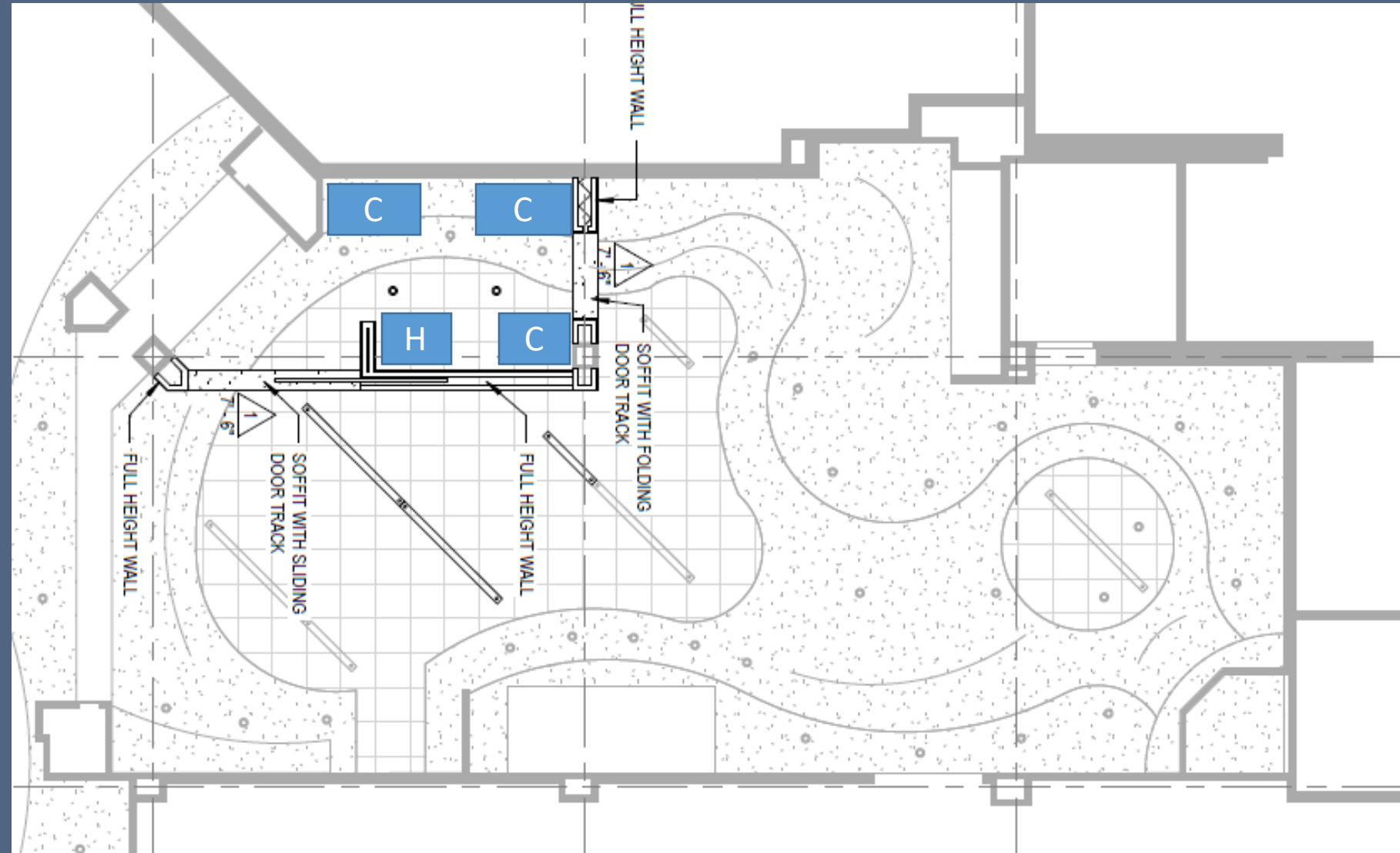
Cold Machines – Non Entrée Items

- **Provides assortments**
  - **Sandwiches**
  - **Desserts**
  - **Salads**
  - **Yogurts**
  - **Fruit**
  - **Humus**
  - **Etc.**
- **Other items as long as packaging fits in bay**

Entrée Machines (Cold and Hot)

Hot Machine

- **Used to provide heated meals ready to eat**

- **Same or similar entrée's served during café open hours**

- **Option to shut off vending after certain time (3hrs) to preserve food quality**

Cold Machine

- **Used to provide refrigerated meals**

- **Will require heating up via microwave**

- **Similar entrées as the hot VM if able to be refrigerated and reheated without diminishing food quality**

- **Will remain operational 24/7 due to refrigeration extending shelf life**

Smart Phone Control and Access

- **Using a Quick Read (QR) scanning app**

- **Allows interaction to occur via your smart phone**

- **Allows for a complete touchless transaction**

- **Android based VM units**

Selection and Payment By Phone

Payment Training Video

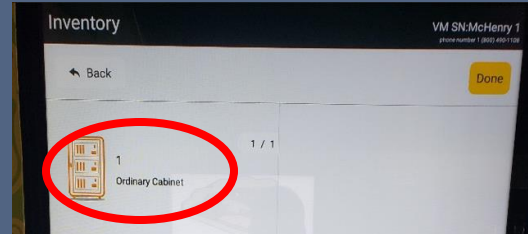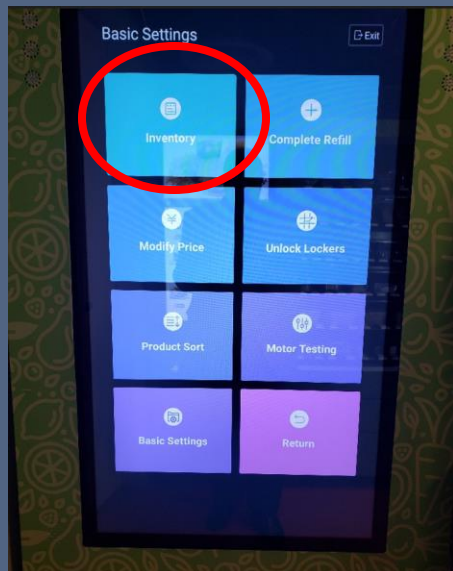Phone view | Drill Down | Pay by Card or Coupon | NFC or Card Swipe
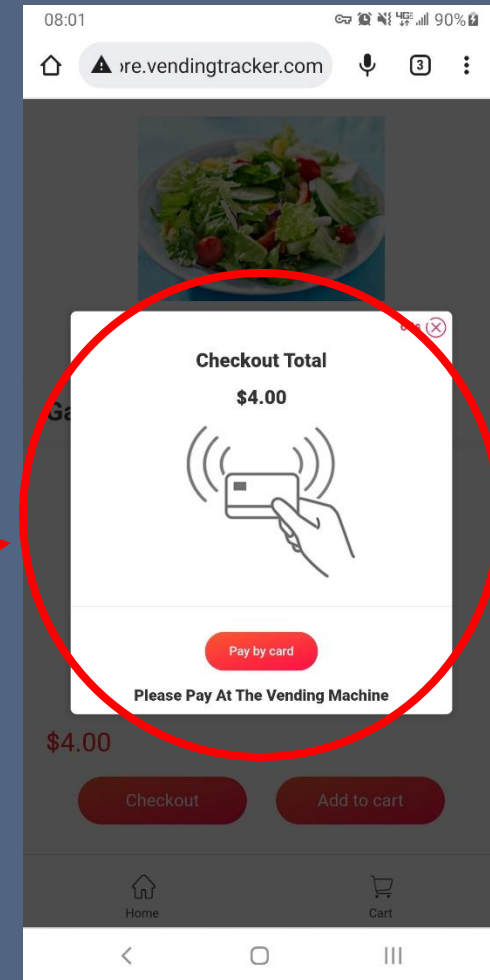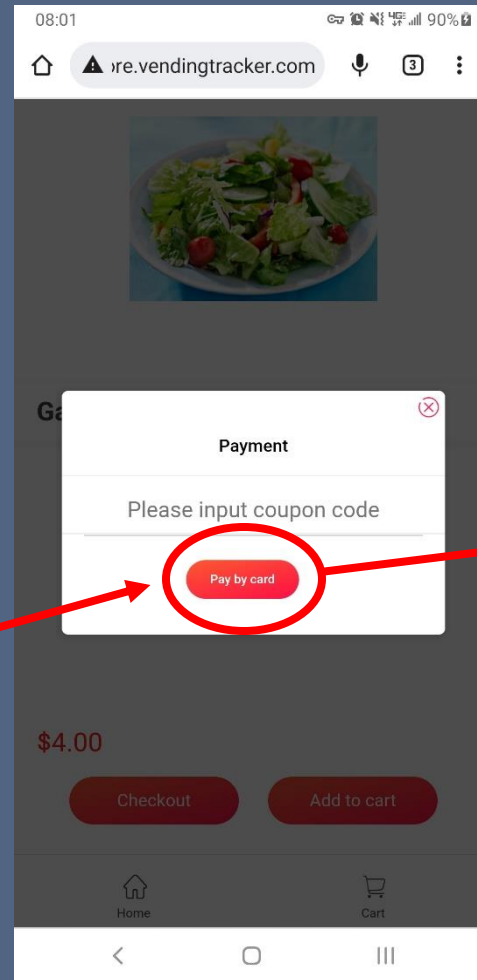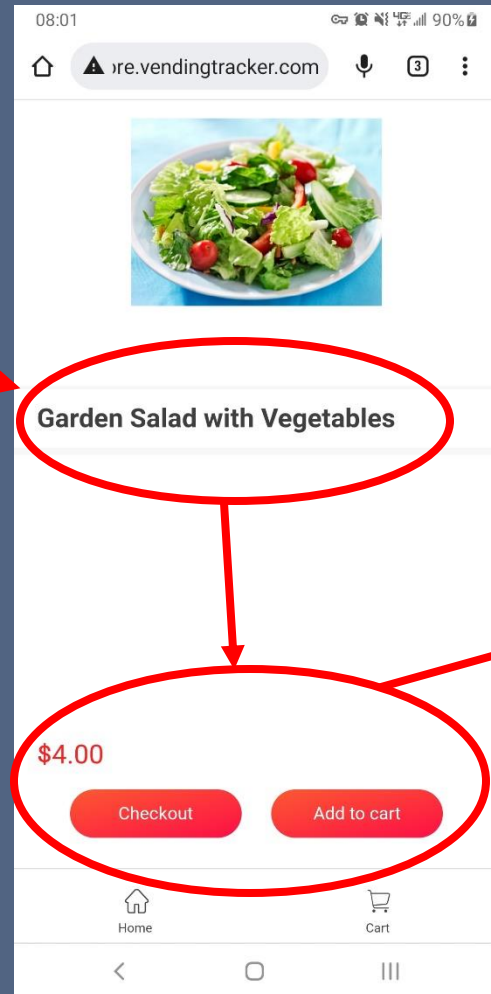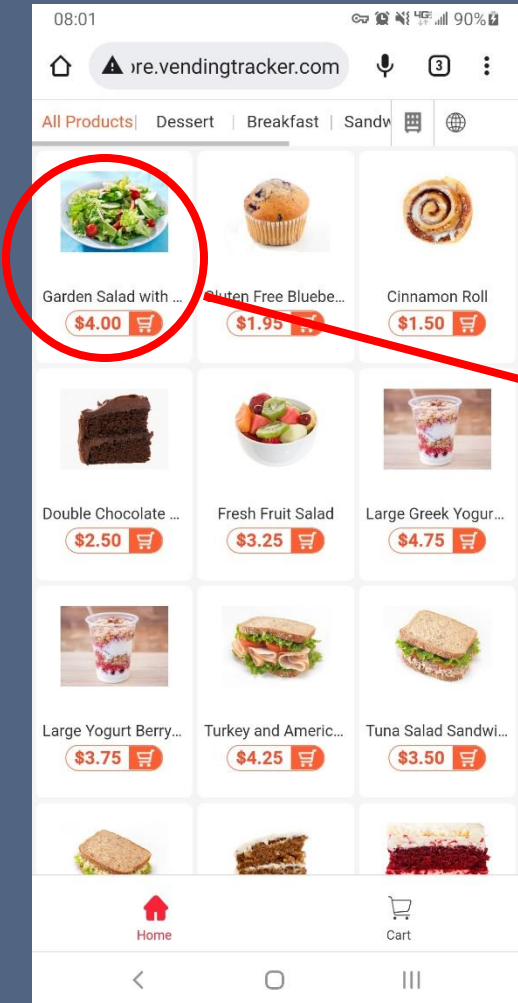
Payment Option

- **Near Field Connectivity (NFC)**
- **Electronic Payments Only**
  - **Smart Card**
  - **Credit Card**
  - **Smart Phones**
  - **E-Wallets**
    - **NAYAX Prepaid**
    - **Monyx Wallet**
- **Cash Not Accepted**
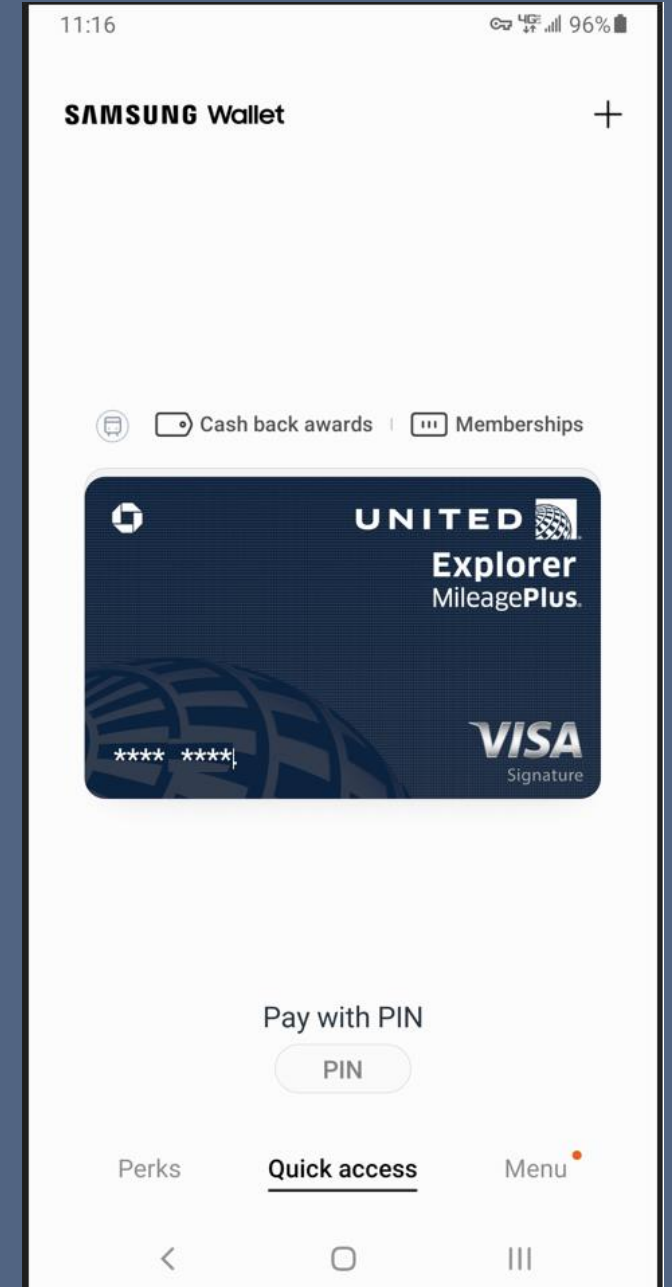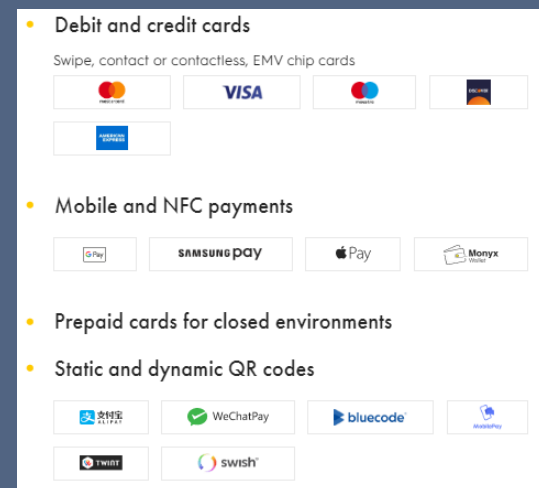
Adding Inventory

- Connect keyboard to Android USB
- Press ESC key
- Menu Board displays on VM
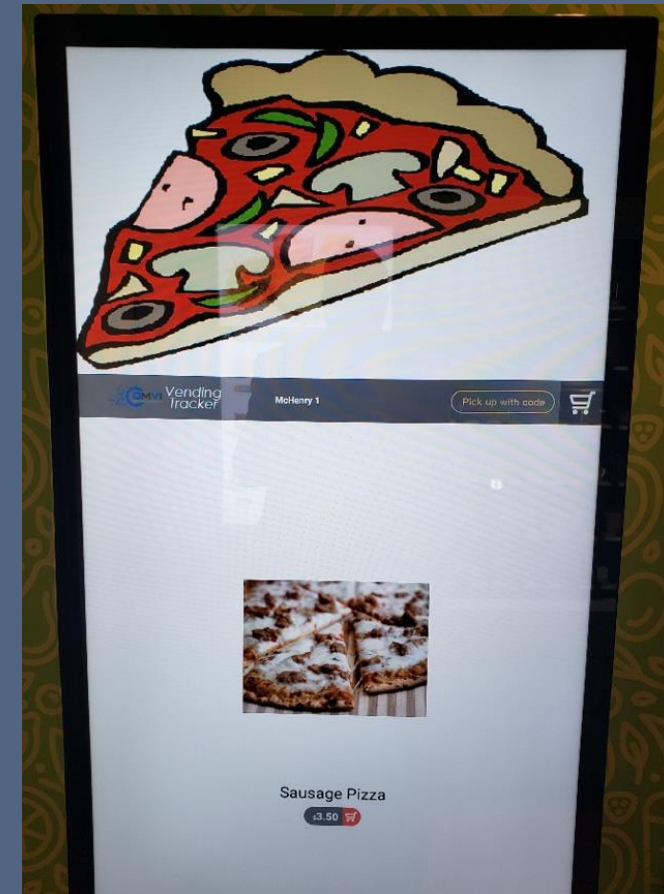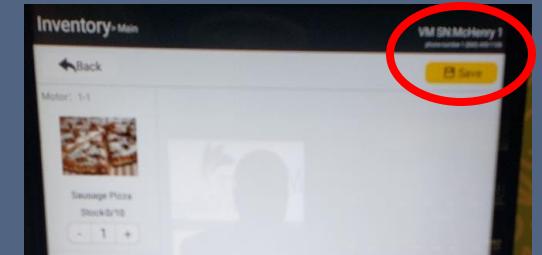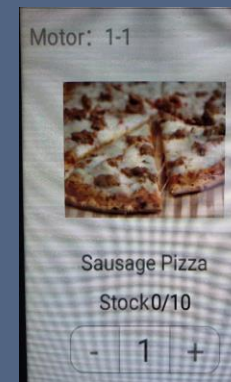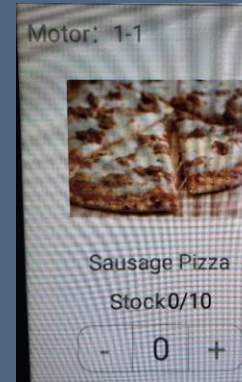
Other Advantages of VM/Nayax Systems

- **Advertising**

- **NAYAX Terminal Capabilities**
    - **Increased activity and financial reporting**
    - **NAYAX Mobile phone apps**
        - **Moma (phone access to NAYAX terminals)**
        - **Monyx Wallet (used for refunds, prepaid cards, etc)**
        - **Remote/Instant Refunds**

- **Locker Storage**
    - **Lockers for food**
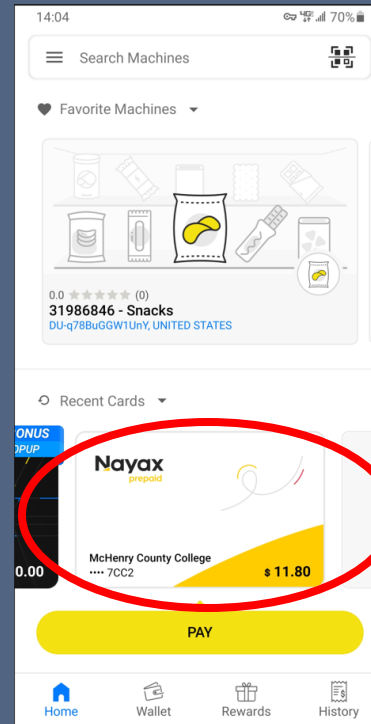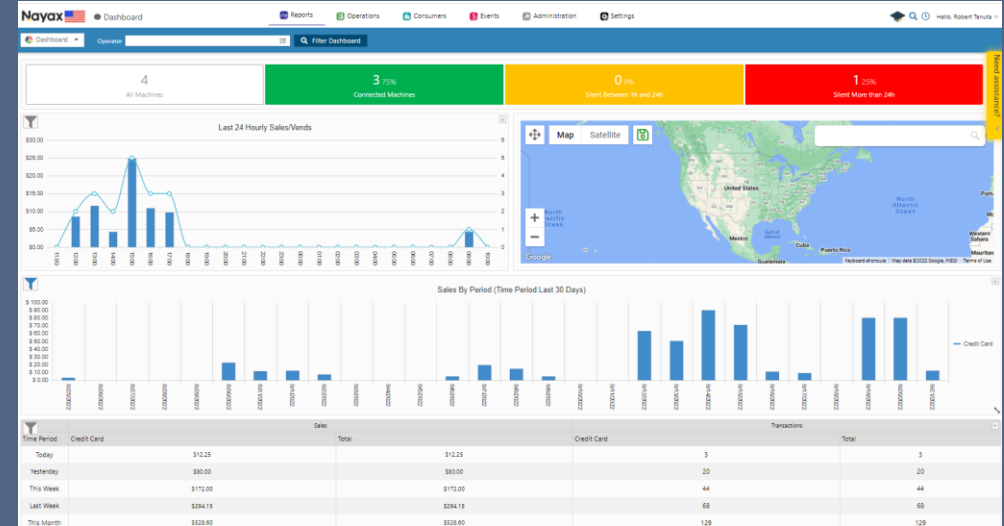   - **Lockers for non perishable items**

Advertising Capability

- **All machines capable of placing advertising in the monitors**

- **Still Images**

- **Video & Audio clips**

- **Multiple images can be loaded and rotated for set times**

- **Internal promotional use or sell space for local advertising**

- **Recognize everyone's favorite CFO**

Remote Operations

- **NAYAX Dashboard**

- **NAYAX reporting**
  - **Multiple reporting options**

- **Remote refund capability**
  - **Monyx Card**
  - **Nayax Prepaid Card**
  - **Back to the credit card used**

- **VM Inventory levels**

- **VM status**

Locker Storage Options

- **Online orders**
  - **food can be placed in either cold or hot locker for later pickup**
  - **Code sent to patron to open locker**
- **Module lockers can be used for other non perishable item pickup**
  - **Bookstore materials after closing hours**
  - **Board members**

Control Module & Locker

Hot Side Locker

Cold Side Locker

Control Module & Locker

Implementation Bugs and Trouble Shooting

- **Supply Chain**

- **Food dispensing properly**

- **Cell reception/communication**

- **VM Staying Online**

- **Business Hours shutoff**

- **Setting up merchant accounts**

- **Learning curve of machines**

Questions?

Footnotes

- Automat History
  - https://allthatsinteresting.com/automat
- Food Insecurities
  - https://www.healthaffairs.org/do/10.1377/forefront.20220127.264905/#:~:text=According%20to%20the%20most%20recent,in%20the%20previous%2030%20days.
  - https://eric.ed.gov/?id=EJ1260812