

Peapod: A Sustainability Proposal

Contents

- Online Grocery Market Overview
- Peapod Overview
- Sustainability Challenge
- Recommendations
- Results and Next Steps

Online Grocery Market

- Online grocery sales are projected to have a compound annual growth rate of 17% between 2007 and 2012, to reach \$13.5 billion.
- Online grocery shoppers are technology-savvy, affluent, career-focused, and convenience-driven consumers. Many are wealthy working moms: 53% are female, 75% work outside the home, 49% have one or more children living at home, and 62% have a high income.
- **In a global study on grocery shopping, 60% of grocery shoppers across 10 markets would "go out of their way to shop green."**

Peapod Overview

- Peapod is one of the largest e-grocers and first to the market, operating in major metropolitan areas including Boston, Chicago, Greater Washington D.C., southern Connecticut, and Long Island.
- Peapod ranks second among Internet Retailer's top food and drug sites and 41st among the top 500 sites overall
- Peapod's customers have healthy eating habits and are more likely to care about sustainability issues.

Sustainability Challenge

How can Peapod reduce waste and emissions, have a positive societal impact, and increase productivity, all while saving money?

- Elimination of Plastic Bags
- Optimization of Routes
- Encouragement of Customer Communities

Plastic Bags: Problems & Current Trends

Problems

- 100 billion plastic bags are used annually in the US; less than 3 percent are recycled
- Plastic bags do not biodegrade; they break down into small pieces that are fatally ingested by hundreds of thousands of marine animals

Trends

- City-wide plastic bag bans
- Traditional and online grocers such as Tesco have moved to bagless services

Reducing Plastic Bag Use

- Allow customers to “rent” green Peapod crates, into which groceries can be transferred by grocery deliverers. Crates are refunded when returned.
- Allow transfer of groceries into reusable Peapod bags for foods where there is contamination concern, such as fresh meat or loose produce.

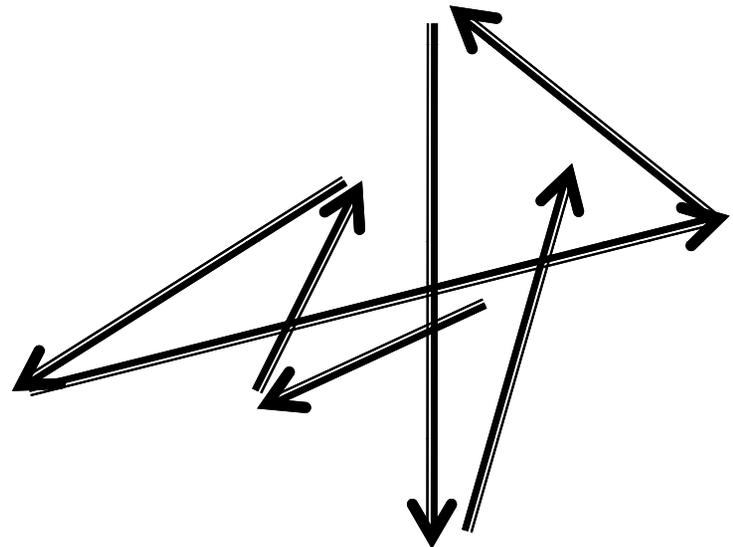
Routing: Problems & Current Trends

Problems

- Customers currently have almost complete control over their delivery days and times.
- Routes are inefficient; drivers retrace their own routes throughout the day

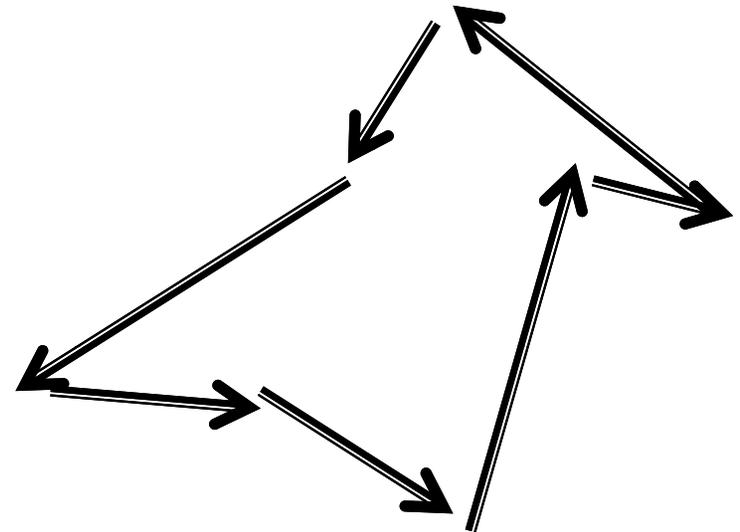
Current Trends

- Allocation of specific delivery days for each region
- Optimized routes



Optimization of Routes

- Optimizing routes by proximity of stops saves fuel and allows drivers to spend more time making deliveries and less time driving.
- Route optimization would require Peapod to deliver to some customers when they are not home; this is common practice for other delivery companies and can be systemized



Customer Communities: Problems & Current Trends

Problem

- Customers are treated as individuals, independent of each other

Current Trends

- Growing concerns about environmental footprint amongst online grocery customers

Empower Customers to Create “Peapod Communities”

- Customers join “Peapod communities” that are geographically defined (e.g. a building, or within 0.5 mile of each other). A customer can join a community based on geographical proximity.
- Each community has a set delivery day and time during the week (or more if the community is very large). An online voting process supported by online forums to discuss members’ issues defines this day and time. This can be changed over time.
- Customers can then place orders and be delivered on the community set day and time with a discount.

Beneficial for Peapod and Customers

	Benefits	Costs
Customers	<ul style="list-style-type: none">- Discount on community deliveries- Environmental "Feel good"- Enhanced social ties in local community	<ul style="list-style-type: none">- None (can still order for any day or time with a fee)
Peapod	<ul style="list-style-type: none">- Customers' feedback from the communities' forums- Increased efficiencies of deliveries (\$\$ man-hours and fuel cost savings)- Increased customer loyalty- Customer acquisition (word of mouth)	<ul style="list-style-type: none">- Implementation of web-based applications to support the communities

Results and Next Steps

Implementing these initiatives will reduce Peapod's environmental impact by:

- Eliminating plastic bags
- Allowing delivery routes to be more efficient and waste less time driving
- Having fewer deliveries to make while still serving the same number of customers (or more)

They will also save money:

- Less fuel wasted
- More trips per driver shift
- No need to purchase plastic bags

MIT OpenCourseWare
<http://ocw.mit.edu>

15.972 Professional Seminar in Sustainability
Spring 2010

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.