Opportunities and challenges in online grocery
Context: Has anything changed?

What will customers pay for? What does it cost?
So can we make money?

Implications
Today’s discussion

• Online grocery continues to lag other categories
• Structurally more difficult – low value density items
• But consumers are increasingly seeking online offerings – even in our categories
• So there’s lots of experimentation and/or innovation as both established and new players seek to “crack the grocery nut”
• Given the challenges it is imperative to understand your economics
  – Cost-to-serve (all-in, marginal basis)
  – Willingness-to-pay
  – Incrementality
• Online sales can drive significant incrementality on a constant customer basis – likely more so for first movers
This time it’s going to be different....?

November 1999
Webvan’s splashy stock debut may shake up staid grocery industry

December 1999
How webvan conquers e-commerce’s last mile

July 2000
Profit delivery stalled, webvan hits new roads

October 2000
Will webvan ever find a better way to bring home the bacon?

February 2001
Webvan closes Dallas operations, plans layoffs to conserve cash, reverse losses

July 2001
Webvan runs out of gas/Online grocer closes its doors, laying off 2,000

Initial public offering: $15.00
Opening day peak: $34.00
Declared bankruptcy: $0.06

Source: Various public media, chart from SFGATE, July 10, 2001
~15 years on, grocery still lags behind most other categories in online sales

eCommerce penetration by category 2015 estimates for the U.S.

<table>
<thead>
<tr>
<th>Category</th>
<th>eCommerce Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics &amp; appliances</td>
<td>34%</td>
</tr>
<tr>
<td>Entertainment &amp; leisure¹</td>
<td>22%</td>
</tr>
<tr>
<td>Apparel &amp; footwear</td>
<td>14%</td>
</tr>
<tr>
<td>Consumer healthcare²</td>
<td>9%</td>
</tr>
<tr>
<td>Beauty (Mass &amp; luxury)</td>
<td>8%</td>
</tr>
<tr>
<td>Personal care</td>
<td>7%</td>
</tr>
<tr>
<td>Home &amp; DIY</td>
<td>5%</td>
</tr>
<tr>
<td>Grocery³</td>
<td>3-4%</td>
</tr>
</tbody>
</table>

¹ Includes books, music CDs, hobby goods, etc.
² Does not include prescription drugs.
³ Includes cleaning/household supplies, packaged food, produce, and beverages (including alcoholic beverages).

The fundamentals haven’t changed – picking and shipping is still much more costly for grocery items.

Note: Dimensional weight -- low density, bulky items assigned a shipping weight based on 160 cu inch/lb
Source: Amazon.com, Strategy& analysis
But consumer preferences are shifting towards online engagement – even in grocery

Preferred customer journey for U.S. shoppers

Preference for in-store interaction across categories

1) PwC total retail study 2014
And a vast array of players are trying to meet that need (1 of 2)

eCommerce proliferation – Coverage vs. product assortment

Source: Strategy& research and analysis
And a vast array of players are trying to meet that need (2 of 2)

eCommerce proliferation – End consumer price and convenience

Source: Strategy& research and analysis
So players are innovating, particularly in fulfillment...

### Trends/Innovation across eCommerce value chain

<table>
<thead>
<tr>
<th>Discovery</th>
<th>Purchase/order</th>
<th>Fulfillment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social shopping</strong></td>
<td><strong>Packaging/size innovation</strong></td>
<td><strong>Amazon predictive shipping</strong></td>
</tr>
<tr>
<td><em>Mimicking physical store interactions online</em></td>
<td><em>eCommerce driven package innovation and sizing</em></td>
<td><em>Sending items to local markets for next day ordering</em></td>
</tr>
<tr>
<td><strong>Geolocation marketing</strong></td>
<td><strong>Specialty subscriptions</strong></td>
<td><strong>Crowd sourced delivery</strong></td>
</tr>
<tr>
<td><em>Real time location based marketing, (in and near store)</em></td>
<td><em>Subscription models based on demographics or life stages</em></td>
<td><em>Using on-demand labor to expedite last mile</em></td>
</tr>
<tr>
<td><strong>Omni channel experience</strong></td>
<td><strong>Dynamic shopping</strong></td>
<td><strong>Mini distribution centers</strong></td>
</tr>
<tr>
<td><em>Table stakes for building digital relationships with consumers</em></td>
<td><em>Influencing customers to build efficient ecommerce baskets</em></td>
<td><em>Smaller DC’s to position product closer to demand</em></td>
</tr>
<tr>
<td><strong>Content &amp; personalization</strong></td>
<td><strong>eCommerce marketplaces</strong></td>
<td><strong>Evolving click + collect</strong></td>
</tr>
<tr>
<td><em>Manufactures must find ways to stay close to the consumer</em></td>
<td><em>Platforms to help small businesses build scale online</em></td>
<td><em>Retailors are using best fit C+C models for their use</em></td>
</tr>
<tr>
<td><strong>Virtual reality</strong></td>
<td><strong>Automated purchasing</strong></td>
<td><strong>“In Route” fulfillment</strong></td>
</tr>
<tr>
<td><em>Virtual in-store shopping experiences</em></td>
<td><em>Connected “smart homes” reorder household staples</em></td>
<td><em>Taking same day orders remotely from last mile route</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Automated delivery</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Using drones or autonomous vehicles to deliver last mile</em></td>
</tr>
</tbody>
</table>

*Source: Strategy& research and analysis*
...as they search for the right balance between consumer convenience and price/cost

Fulfillment innovation focus areas

<table>
<thead>
<tr>
<th>Convenience</th>
<th>Price/cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consumer expectations for expedited delivery at minimal or no cost – perceived vs. actual</td>
<td>• Price continues to be primary driver of online purchases and consumer choice of etailer</td>
</tr>
<tr>
<td>• Consumers demanding flexibility in fulfillment/delivery options</td>
<td>• Increasing eCommerce competition leading to unsustainable online prices to win share and gain traffic</td>
</tr>
</tbody>
</table>

> eTailers facing margin pressures as they try to balance these often conflicting interests/objectives

*Drive down fulfilment costs*

*Expedited delivery / fulfillment*

*Other convenience drivers*
Non-perishable, stock up occasions are probably most vulnerable to online disruption

“Consider the job of buying dinner…shoppers typically don’t decide what they’re going to buy until they’re at the store…they want to examine the perishable ingredients… Customers turn to supermarkets, farmers’ markets and corner stores to get the job done. The convenience of online retail is simply not enough

Shoppers stocking up on branded non-perishables…know what they want and generally don’t require it immediately. …This the job most susceptible to disruption by online grocers.”

Surviving disruption by Maxwell Wessel and Clayton M Christensen, HBR December 2012

Shopping occasion and product type mix 2012 (% sales)

<table>
<thead>
<tr>
<th></th>
<th>Perishable&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Non-perishable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock up</td>
<td>10%</td>
<td>40%</td>
</tr>
<tr>
<td>Top up</td>
<td>32%</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>42%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Note 1): Perishable Includes frozen, in-store bakery, deli, etc.
Source: Category sales data, Strategy& analysis
Certainly, today consumers are more willing to shop online for non-perishables and non-food.

**Online grocery spending**

<table>
<thead>
<tr>
<th>Online penetration</th>
<th>% consumers who bought groceries online in last 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perishable</td>
<td>3.1</td>
</tr>
<tr>
<td>Non-perishable</td>
<td>6.4</td>
</tr>
<tr>
<td>Non-Food</td>
<td>9.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Online share of wallet</th>
<th>% of spending online by online consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perishable</td>
<td>64.0</td>
</tr>
<tr>
<td>Non-perishable</td>
<td>70.5</td>
</tr>
<tr>
<td>Non-Food</td>
<td>74.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Share of online grocery spend</th>
<th>% of all online grocery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perishable</td>
<td>18.0</td>
</tr>
<tr>
<td>Non-perishable</td>
<td>56.0</td>
</tr>
<tr>
<td>Non-Food</td>
<td>26.0</td>
</tr>
</tbody>
</table>

Less than 20% of online grocery spend is perishable

Source: Strategy& consumer survey
Context: Has anything changed?

What will customers pay for? What does it cost?

So can we make money?

Implications
To respond effectively grocers must understand the cost-to-serve versus willingness-to-pay of the last mile

### Delivery models and cost drivers

<table>
<thead>
<tr>
<th>Delivery Type</th>
<th>Cost driver</th>
<th>Examples</th>
</tr>
</thead>
</table>
| In-store buy & take home        | • Large scale  
  • Warehouse space  
  • In-store staff labor  
  • Pick-up kiosk/infrastructure | Most retailers                                                             |
| Order online, store pick-up     | • Large scale  
  • Warehouse space  
  • In-store staff labor  
  • Pick-up kiosk/infrastructure | Walmart, Best Buy, Target, Crate & Barrel, Bloomingdale's, Instacart        |
| White glove delivery            | • Labor intensity  
  • Trucks  
  • Lost/damaged fees  
  • Delivery fee | Sears, Stop & Shop, Macy's, Nordstrom                                     |
| Personal shopper                | • Labor intensity  
  • Trucks  
  • Delivery fee  
  • Manual pickup  
  • Smaller shipment sizes | Zappos, Amazon, Macy's, Nordstrom                                        |
| Ships from store                | • Inventory space  
  • In-store staff labor  
  • Trucks, delivery infrastructure | Jet, Gilt, Munchery                                                       |
| E-commerce: click + deliver      | • Short lead time  
  • Fully automated DC/warehouse  
  • Automated picking  
  • Complex logistics | Walmart, Amazon, Macys, Nordstrom                                        |

### Type of purchase

- Durable goods
- Fashion
- Replenishment staples
- Instant gratification

### Examples

- Walmart, Best Buy, Target, Crate & Barrel, Bloomingdale's, Instacart
- Sears, Stop & Shop, Macy's, Nordstrom
- Zappos, Amazon, Macy's, Nordstrom
- Jet, Gilt, Munchery
Nearly all consumers seek value – so charging for delivery is a challenge

Shopping preferences/tendencies

When shopping both online and in-store, I always look for the best value

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Neither Agree Nor Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$25k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25-49k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50-74k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$75-99k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100-149k</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&gt;$150k</td>
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</tr>
</tbody>
</table>

Note: Detailed income categories are <$25k, $25-49k, $50-$74k, $75k-99k, $100k-149k and >$150k.
Source: Strategy& analysis

Utility weightings from conjoint

Importance by attribute

- Membership cost (Annual fee)
- Delivery fee (Per order cost)
- Speed (Delivery time)
- Service model

Household income

Note: Detailed income categories are <$25k, $25-49k, $50-$74k, $75k-99k, $100k-149k and >$150k.
Source: Strategy& analysis
So premium, “full-service” models are particularly challenged

**Amazon Prime Pantry**
- 3 Day lead time
- No out of stock
- 3 Damaged

**Total cost:**
- $86.34

**Relay Foods**
- 15 Hour lead time
- 1 Out of stock
- None damaged

**Total cost:**
- $126.55

**Instacart**
- 2 Hour lead time
- 4 Out of stock
- 1 Damaged

**Total cost:**
- $122.92

<table>
<thead>
<tr>
<th>Membership</th>
<th>Delivery Fee per Box</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>$5.99</td>
<td>$126.55</td>
</tr>
</tbody>
</table>

Options:
- $99 Membership
- $3.99 x 3 (w/o promo)
- Plus $20 Optional Tip
Consumers value speed but may not be willing to pay for it

Non-perishable grocery: Consumer preference trade-offs

1) Utility is a quantification of a respondent’s internal preferences for a given product’s attributes. The conjoint survey derives this value by repeatedly asking respondents to choose between different version of the same product to tease which of the product’s attributes most contribute to a trade-off decision. Source: Strategy& analysis, survey sample size was 2009
In contrast, pure play e-comm is marginally lower cost than a self-serve store. “Omni-channel solutions” are significantly more costly.
Context: Has anything changed?

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So can we make money?

Implications
# Two key questions for incumbents

## Will online grow my business?
- What customer segments are most likely to choose an online offering?
- Will your sales to these customers be incremental or simply switching channels/formats within your banner?
- Note: NOT sufficient to say “customers who use mybanner.com buy 2x more from me than customers who don’t” (as many multi-channel retailers do…)

## Will online grow my bottom line?
- Given that I have my stores, what if I sell online as well, am I going to be making more money or less money than before?
Done right, an online business truly drives incremental sales...

**Impact of adding online channel: Constant customer**
(Indexed)

**Mix of Occasions**

- **Mono-channel - conventional**
- **1 year after online sales start**

- **Online Stock-Up**
- **Top-up/fill-in occasions remain in-store**

- **Online revenue**
- **Offline revenue**
With these uplifts, and typical margins, an online business can be modestly accretive to the traditional business.

### Typical online order economics
($/Order, shipped to store to home)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Average Order</th>
<th>Shipping Charge</th>
<th>COGS</th>
<th>Gross Margin Earned</th>
<th>Direct Costs</th>
<th>Overhead Support</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### B&M vs multi-channel contribution
(Indexed, constant customer)

- **Mono-channel B&M**: ~9% Contribution
- **Multi-Channel**: ~16% Contribution

### Source
Strategy& analysis
Context: Has anything changed?

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Implications
## Takeaways and implications

### Emerging market

- Frenetic activity – innovators trying to crack the grocery nut
- Some evidence of material progress in market-share terms – particularly in non-perishable (and within that non-food)
- Future growth most likely in non-perishable, stock-up trips
- Consumers remain unwilling to pay much for delivery – disadvantaging express services in particular
- Pure-play models modestly advantaged on an all-in cost basis…
- …but online models generally disadvantaged on a marginal cost basis (high variable costs per order)

### Implications

- Online sales of perishable items – still early days
- More generally, online sales generally have lower *contribution* margin (i.e. sell through %) but are profitable on a marginal cost basis…
- …so NEW customers are a good thing
- However, simply switching EXISTING customers without increasing SoW is very likely earnings dilutive
- Our experience suggests that the best online offerings DO increase SoW – potentially by quite a lot…
- …but only for those who can capture share
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