



Omnichannel in Horticulture: Comparing Online and Instore Plant Purchasers and Purchases

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► **Dr. Melinda Knuth**, North Carolina State University



► **Dr. Pat Huddleston**, Michigan State University



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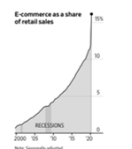
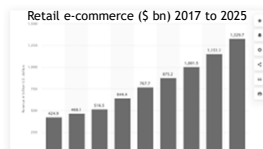
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U.S. E-Commerce Habits Deepen

By Heather Thayer

"It's not sure I'll ever go into a store again," said the 58-year-old retired investor in a recent survey by the Brookings Institute. "I now buy groceries online and have my car washed at a self-service car wash. I've also bought a new car online." The pandemic's disruptions have transformed how U.S. consumers behave by accelerating their embrace of digital commerce, and the changes are likely to prove permanent, according to business strategists and analysts in the research.

A recent survey by consulting firm McKinsey & Co. found that about 3 out of 4 people have tried a new shopping method due to the coronavirus and that more than half of all consumers intend to continue using curbside pickup and grocery delivery services after the pandemic is over. Nearly 70% of consumers surveyed intend to continue buying online for more goods. The pandemic collapsed into three months a process of adopting e-commerce that other





Source: Wall Street Journal, November 16, 2020.

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Three out of four US consumers say that they are shopping both online and in stores—and many are participating in omnichannel activities.

Consumer shopping behavior in past 3–6 months, % of respondents



More people omnichannel shopping

Top 10 omnichannel activities, % of respondents participating (past 3 months)



Source: McKinsey COVID-19 US Consumer Pulse Survey, Feb 25–Mar 1, 2022, n = 2,963 sampled and weighted to match the US general population aged 18 years and older.

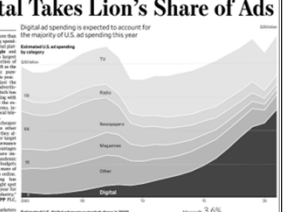
McKinsey & Company

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BUSINESS & FINANCE

Digital Takes Lion's Share of Ads

Digital ad spending is expected to account for the majority of U.S. ad spending this year

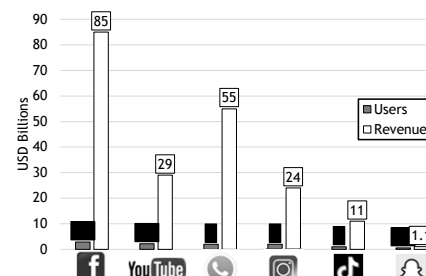


Spending for online advertisements now exceeds other media

Advertiser's digital ad spend as a share of total ad spend: TV (29.9%), Radio (10.2%), Newspaper (32.9%), Digital (27.0%)

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Dynamic changes in platform use



Marketing Hub Social Media Report, 2023. <https://influencermarketinghub.com/social-media-trends/>

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Online options
 Instagram is a huge driver of the current houseplant craze, as well as a popular place for plant parents to find their communities, whether they're local or global. And garden centers are finding success marketing their stock via the social media platform, as well as Facebook, while an increasing number are getting on TikTok.

While COVID shutouts and concerns forced many to explore online sales, the number of garden centers offering a virtual store is still low. Online options are popular for education, however, but in-person events remain the most popular way to educate customers.


What social media channels do you use to promote houseplants?

Facebook	Instagram	YouTube	TikTok	Pinterest	Twitter	LinkedIn
91%	80%	21%	15%	13%	13%	5%

Are you selling houseplants online?

Yes, we have an e-commerce site	Yes, we allow customers to shop online and pick-up in store	No, but we plan to in the future	No, and do not plan to in the future
15%	21%	23%	48%

SM advertising for plants is big! Online sales are growing.




Source: Green, K. 2022. House Houseplants. <http://www.gardenersworld.com/articles/house-houseplants-2022-houseplant-research-report-garden-centre/> is a survey of 402 garden centers in February 2022.

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Plant Purchases and Social Media Use

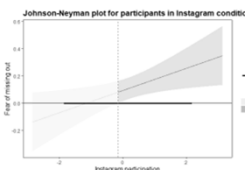

- ▶ Age and ...
 - ▶ Online shopping = -0.276
 - ▶ Following a plant retailer or grower = -0.486
 - ▶ # of social media accounts = -0.569
 - ▶ First time plant buyer = -0.454
- ▶ First time buying and ...
 - ▶ Buying plants online = 0.404
 - ▶ Following a plant grower or retailer = 0.509
 - ▶ # of social media accounts = 0.544



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FOMO and Instagram Use

The more active the participant was on Instagram, the more FOMO they experienced.

Nieumans, D., P.T. Haddleton, and S.K. Beha. 2021. Fear of Missing Out and Social Media Use: Differential Effects of Priming on Attitudes Towards Product. *New Media and Society*. <https://doi.org/10.1177/1461444211018184>

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Ontario (9) "We used Instagram to post a rare hoyo release on Saturday morning (posted on Friday night), and customers came to line up starting at 6:42 am. The store opened at 8:00 am and by 8:30 we had sold over 500 plants at \$19.99. It's like a gold rush on some of the tropical plants." —Maryann Vandermeer, Vandermeer Nursery



Does FOMO increase willingness to pay?

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Comparison of online and in-store plant purchasers

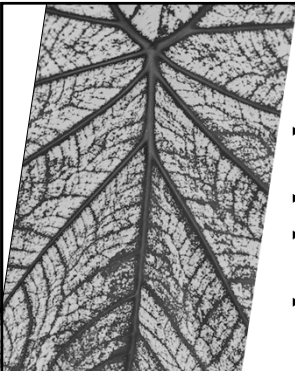
- ▶ Funded by Horticultural Research Institute (thank you!).
- ▶ Data collected online from August 24 to September 18, 2022
- ▶ Approved by the University Committee on Research Involving Human Subjects
- ▶ Participants were paid through their panel for providing information
- ▶ Sample size: 2148 total: 1058 online plant buyers and 1090 in-store plant buyers




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Online versus in-store plant purchases


- ▶ To qualify for an online plant buyer, they must have purchased at least one plant online in the year prior to the study.
- ▶ We had 1058 participants who qualified as online plant buyers.
- ▶ To qualify as an in-store plant buyer, they must have purchased at least one plant in-store in the year prior to the study.
- ▶ We had 1090 participants who qualified as in-store plant buyers.



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Time online: Online v. In-store Plant Purchasers



- ▶ Time (hours) online for work: 5.1 v. 3.1
- ▶ Time (hours) online for fun: 5.4 v. 4.8
- ▶ Amount spent on personal online purchases of any type: nearly \$300 v. \$100.
- ▶ Only 6.4% of in-store shoppers bought nothing online.
 - ▶ It isn't that in-store plant shoppers aren't buying online, they just aren't buying as much online (omni-channel)



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Purchase comparison of online and in-store plant purchasers


- ▶ Online plant buyers:
 - ▶ 73% of their plants online (27% in-store)
 - ▶ 54% of online plant buyers bought no plants in the store.
- ▶ In-store plant buyers:
 - ▶ 89.6% of their plants in-store (10.4% online)
 - ▶ Only 8% of the bought no plants online.

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Online v. In-store spending and purchase behavior

- ▶ Between March 2022 - October 2022, amount spent on plants and cut flowers was higher online than in-store.
- ▶ Online \$143.27
- ▶ In-store \$135.58



☆ =Significant difference between online and in-store at p ≤ 5%.

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Think of these as separate windows of opportunity!



Instore shoppers spend less overall but more likely to buy plants online.



Online shoppers spend more on plants but they are not as likely to buy in-store.


Why do we want them in the store? Impulse purchases!

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Practical application

Consider fewer and higher-margin items for the online store, keeping in mind shipping costs.

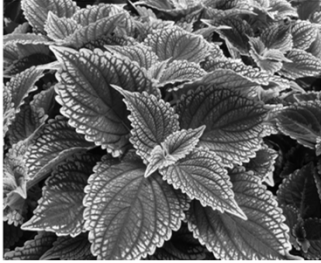
Herbs, indoor foliage, and annual plants were the highest selling plants online. These should be among the first types of plants you might consider adding to online sales.



Annuals, indoor foliage, and flowering plants were the top in-store purchases.

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Home / Annuals / 'All Annuals' / COLORBLAZE® GOLDEN DREAMS™ Plectranthus



COLORBLAZE® GOLDEN DREAMS™ Plectranthus


★★★★★ (3 customer reviews)

- Plant in Sun or Shade,
- Easy to Grow,
- Beautiful Chartreuse Green Foliage,
- Ships in a 4.25 Eco+ Grande™ Pot!

Ships in Spring
 Buy 3 and **save 5 %** *excludes sale items
 Buy 6 and **save 10 %** *excludes sale items
 Buy 12 and **save 15 %** *excludes sale items
 Buy 24 and **save 20 %** *excludes sale items

0 + COLORBLAZE® GOLDEN DREAMS™ Plectranthus - PW - 4.25 Eco+ Grande™ Pot **\$10.99** Availability: In stock

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Annual Combination 'Fruit Salad'

Ships in Spring


- Buy 3 and **save 5 %** *excludes sale items
- Buy 6 and **save 10 %** *excludes sale items
- Buy 12 and **save 15 %** *excludes sale items
- Buy 24 and **save 20 %** *excludes sale items

0 + Annual Combination 'Fruit Salad' - PW - QT Pot **\$18.99** Availability: In stock

0 + Annual Combination 'Fruit Salad' - PW - 8" Jumbo Pot **\$26.99** Availability: In stock

Convenience comes at a higher price!

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Rhipsalis pilocarpa | 3.5" \$ 7.99


Rhipsalis salicornioides | Dancing Bones | 3.5" \$ 9.99

Senecio stapeliiformis | Pickle Plant | 4" \$ 9.99

Albucca spiralis 'Frizzle Sizzle' | Rare Curly Succulent | 3.5" \$ 14.99

Shipping is always a consideration!
 Think, too, about how broad the market is (from 50 miles to many miles)!

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Ceropegia sandersonii | Parachute Plant | Rare | 3.5" \$ 21.99

Chamaedorea elegans | Neanthe Bella Palm | 3" \$ 8.99

Chamaedorea elegans | Neanthe Bella Palm | 6" \$ 24.99

Consider selling online only those plants you can get a premium for and ones that will ship well (improve customer experience).

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Marketing ideas for online plant purchasers

Live Plants

All live plants are guaranteed to arrive happy & healthy. It's our customer happiness guarantee!

View By: Most Popular

- All Live Plants
- Flowering Plants
- Large Plants
- New For Beginners
- Pre-arranged Plants
- Low Light Succulents

Filter: All, None, Leaf

1-18

- 1 Bio's Next Fern \$49.99
- 2 Trailing Heart Leaf Hops, Variegated \$29.99
- 3 ZZ Plant \$49.99
- 4 Hoya Carnosa Tricolor \$49.99

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Marketing ideas for online plant purchasers


DRY (CACTI) JANUARY

Finish off Dry January with a Bang at GPH! Parch will be joining us for a complimentary non-alcoholic cocktail event from 12-2. Our succulent house will be PACKED with amazing dessert delights. Parch will be handing out samples. ANND we will have Pancho's Tacos out slinging Mexican food. It will be a great day of warm weather dreaming!



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Marketing ideas for in-store plant purchasers



G(P)alentines Day

G(P)alentines day (Feb 19th) is a day of the year that we celebrate our best friendships! So grab your girls, pals, and/or family to enjoy the warm of our greenhouses, make an air plant craft, and eat some great food (except from our my sweets we'll be selling our AMAZING cookies, & Kitty's Mission! Chicken will be selling delicious fried chickens, as mild or hot as you like!! Our cyle barn will be set up for you to sit and enjoy your meal in a warm space.

If you want to make a craft purchase a ticket for the time you want to come out, to ensure we don't sell out! Visit the barn to make your project, and then take your time to enjoy the greenhouses after.

*Ticket cost covers 1 envelope, 1 air plant, & moss.

TICKET
11 AM

Register Now

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Practical applications



- ▶ Where someone shops (in-store and online) influences plant spending.
- ▶ Generally, if a person buys a plant online, they spend more.
- ▶ This is particularly true for **seeds, flowering potted plants, indoor houseplants, and cut flowers.**

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Practical applications




- ▶ If a person buys **herbs or evergreens**, their total spending increases in the store.
- ▶ Which aligns better with your business and products?
- ▶ How would online vs. in-store impact your bottom line?
 - ▶ Additional costs related to labor, shipping/packaging, logistics, additional training, can the plants ship?

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Demographics: online v. in-store plant purchasers


- ▶ Age: 41.5 v. 48.2 years old
- ▶ Gender: 45.0% female v. 81.9% female
- ▶ Income: \$80-\$90K v. \$40 to \$49K
 - ▶ \$40K less household income in-store versus online
 - ▶ More affluent consumers shopping online



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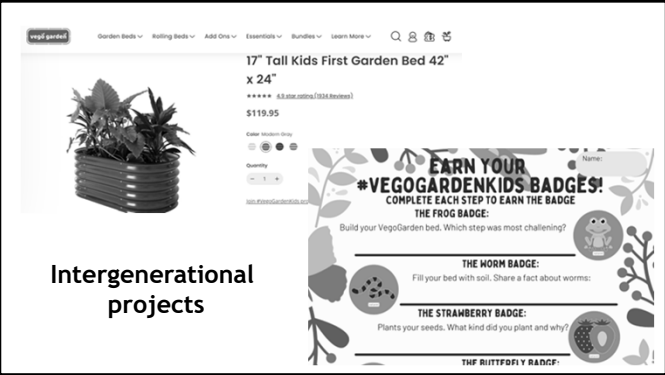
Demographics: online v. in-store plant purchasers

- ▶ Adults in household: 2.00 v. 2.03
 - ▶ Not a significant difference
- ▶ Children in household: 1.85 v. 0.50
 - ▶ More parents shopping online
- ▶ Percent Caucasian: 23.3% v. 89.9%
 - ▶ More ethnically diverse online audience



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Intergenerational projects



17" Tall Kids First Garden Bed 42" x 24"

***** 4.8 star rating (184 Reviews)

\$119.95

Color: Modern Gray

Quantity: 1

www.PlantGarden.com

EARN YOUR #VEGARDENKIDS BADGES!
COMPLETE EACH STEP TO EARN THE BADGE

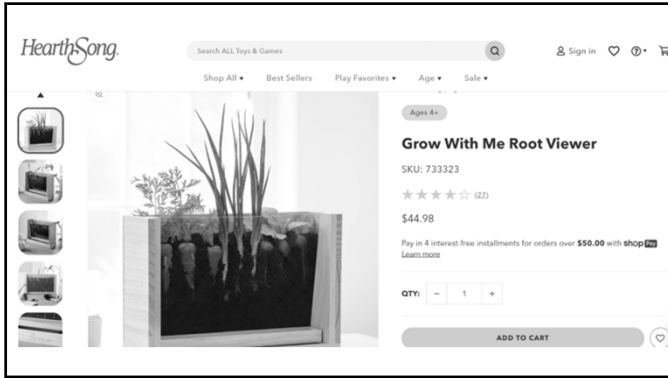
THE FROG BADGE:
Build your VegoGarden bed. Which step was most challenging?

THE WORM BADGE:
Fill your bed with soil. Share a fact about worms.

THE STRAWBERRY BADGE:
Plants your seeds. What kind did you plant and why?

THE BUTTERFLY BADGE

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Practical application

More parents are buying online. Do you have products available that appeal to parent-child activities? Grandparent-child?

What is the ethnic diversity of the market you serve? Are you marketing products in colors that might have greater appeal? Are you merchandising products that might appeal more to certain holidays and traditions of the people in your market?

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As age increase, satisfaction in the...


- Quality of plant
- Plant/flower was the size I expected
- Plant survived and grew or cut flower survived for a sufficient time

- Satisfaction in the plant/flowers was in the form I expected (bare root, potted, leaves/none, etc.)


*Age is inversely related to online plant purchasing, the # of types of plants purchased, and the amount spent on plants

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Practical application



Your company may be more used to a largely female clientele, but there may be more male clients online. Use a broader color palette in backgrounds and flower colors to appeal to both clients.

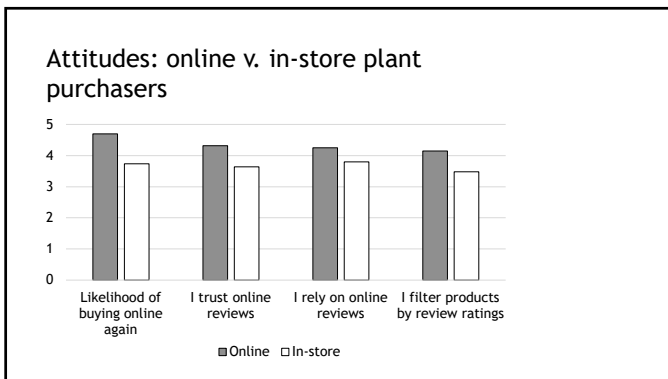


Using more youthful models in addition to plants will help appeal to younger consumers. Image congruency works!

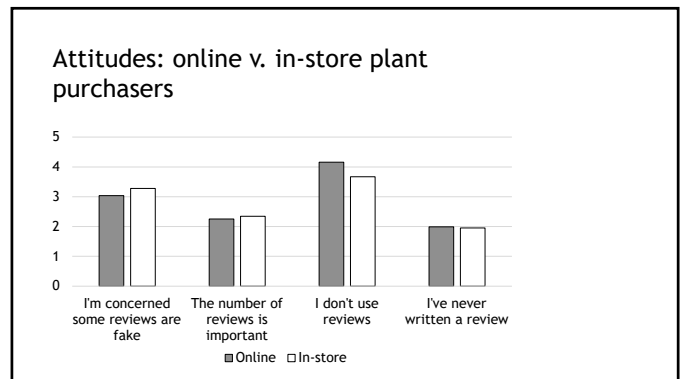


Higher price points and more profitable products should be the core products. Don't put everything online!

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3 reviews for COLORBLAZE® GOLDEN DREAMS™
Plectranthus


Denise – March 9, 2022
★★★★★
Best coleus I have ever grown. They were in part sun and grew huge and thrived in our heat, humidity and clay soil. Love it!

Sisise K – September 14, 2021
★★★★★
Probably the best coleus I've ever grown-first one got yo almost 5' - took cutting/ over wintered in green house planted again and still going strong- didn't like anything chartreuse before this but now want lots of that color in my garden- I have several other Proven Winners coleus- all are fabulous!!

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Compare mobile v. non-mobile device users

- ▶ Mobile device users (cell phone users) who used online reviews had a higher level of satisfaction, delight (emotion), and were more likely to buy (LTB) that plant again compared to non-mobile device users!
- ▶ Articles on the Internet, website ads, search engine results, email from retailer, use of Instagram, Facebook, Pinterest, and TikTok did not evoke any difference in the customer's level of satisfaction, delight, or likelihood to buy the plant again.



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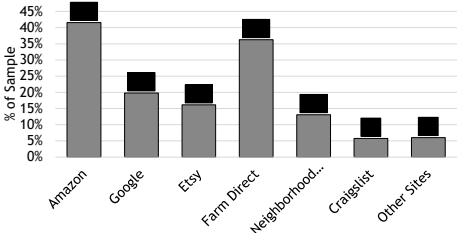
Practical application

Online plant buyers are highly likely to buy online again. Having "fresh" products for them to view is just as important as it is for in-store buyers.

Online reviews are more important to online buyers than in-store buyers. Are you reminding online customers to leave online reviews? Are you monitoring online reviews and responding appropriately?

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Which platforms did they use to buy plants online?



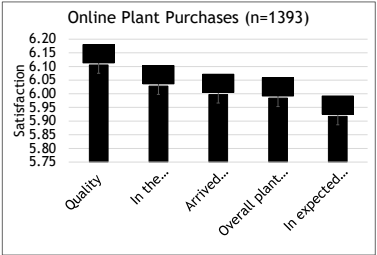
Platform	% of Sample
Amazon	~42%
Google	~22%
Etsy	~18%
Farm Direct	~38%
Neighborhood...	~15%
Craigslist	~8%
Other Sites	~10%

90% Were Very Likely to Buy Online Again!

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How do different online platforms influence the customer experience?

- ▶ Overall quality
- ▶ Arriving undamaged
- ▶ Arriving in the correct form
- ▶ Arriving in the expected size
- ▶ Performance - overall survival



Category	Satisfaction Score
Quality	6.15
In the...	~6.05
Arrived...	~5.95
Overall plant...	~5.85
In expected...	~5.75

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How do different online platforms influence the customer experience?

FARM DIRECT WEBSITES

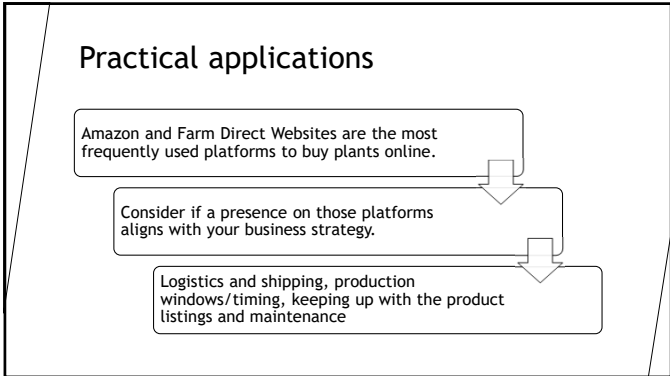
- ▶ Overall quality +6.6%
- ▶ Arriving undamaged +4.0%
- ▶ Arriving in the correct form +5.7%
- ▶ Arriving in the expected size +5.2%
- ▶ Performance - overall survival NSD

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How do different online platforms influence the customer experience?

	Social Media	Amazon	Google	Etsy	Farm Direct	Craigslist
Overall Quality		+4.4%			+6.6%	+12.2%
Arriving Undamaged				-4.5%	+4.0%	
Correct Form			-6.8%	-7.4%	+5.7%	
Expected Size	-6.1%				+5.2%	
Performance - Survival		+5.8%	-5.6%			

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Practical applications

Consumers have had positive experiences buying plants online (quality, low damage, expectations, performance).

Need to maintain these expectations by delivering plants that meet consumers expectations.

Farm direct websites = most positive experience

Amazon = quality and performance/survival were rated highly

More variability occurred in Google and Etsy platforms

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Online reviews impact consumer's expectations when buying plants online.

	I trust online reviews.	I often rely on online reviews when purchasing products online.
Overall Quality	+14.1%	
Arriving Undamaged	+11.9%	
Correct Form	+14.9%	+3.2%
Expected Size	+13.9%	
Performance - Survival	+13.6%	

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Online reviews impact expectations when buying plants online

★★★★★ Beautiful Snake Plant! Would not hesitate to buy again!

Reviewed in the United States us on March 15, 2023

Color: Modern White/Natural Decor Planter | Size: 1-2 Feet Tall | Style: Snake Plant, Grower's Choice | Verified Purchase

Let me just say I don't usually write reviews on items I purchase. A product has to be extraordinarily good or extraordinarily bad for me to take the time for a review. Well, I'm doing this review because my snake plant I received today far exceeded my expectations. It was very securely packed in a box. Once I retrieved it from the box, the dirt and the insert pot was securely wrapped in several layers of plastic wrap. There were 3 bamboo poles to steady the plant. I unwrapped all the plastic wrap. I removed the tall paper wrap around the leaves of the plant and examined it. There was only one tiny tip of a leaf that had broken. The tip that broke was only about 1/3" long so it was really insignificant. My snake plant measured 21" from the bottom of the pot to the top of the leaves.

The dirt was moist still and my plant doesn't need watering. I put it out on my porch here in N. Texas getting an eastern exposure. This plant traveled by UPS Ground from Florida to Texas but because of the special care in wrapping and protecting and boxing this plant, it arrived in beautiful condition.

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Practical applications

- ▶ Consumers rely on reviews when setting expectations and making purchasing decisions.
- ▶ Regularly review reviews - respond where needed... this is customer service online!
- ▶ Encourage people who have positive experiences to post content!

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Summary

- ▶ The use of e-commerce will continue to grow, but for consumers it isn't an either-or choice: think omnichannel. It's convenient!
- ▶ Social media platforms are making it even easier to buy products through their platforms.

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Summary

- ▶ Online plant buyers spent more, on average. Price points are different from in the store, mostly higher (even before shipping).
 - ▶ Spend is higher online for seeds, flowering potted plants, cut flowers, and flowering shrubs.
 - ▶ Spend is higher in-store for herbs and evergreens.
- ▶ The demographics are slightly different. Online shoppers are younger, spend more time online (for work and play), and are more likely to have children. Merchandise accordingly.

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Summary

- ▶ Amazon and farm direct websites are the most popular platform options.
- ▶ Quality, being the anticipated size and form, lack of damage during shipping, and overall survival of the plant = satisfied purchasing.
 - ▶ Farm direct seems to be doing the best job at this.

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Summary

- ▶ Reviews matter. Consider how your company is recruiting reviews and responding to positive and less-than-positive reviews. Yes, something else to monitor and manage.
- ▶ Consumers rely on reviews because they trust other consumers' opinions. Active engagement with your consumers only builds trust with them.

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Bridget Behe, Michigan State University



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