Exploring Changes in Local Food Purchasing Patterns during COVID-19: Insights from a Nationwide Consumer Survey

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Introduction

COVID-19 ignited supply chain shocks and catalyzed changes in consumer purchasing behavior, resulting in everything from flour shortages to increased use of local market channels (Weersink et al. 2021; Hobbs 2020). The size, nature and persistence of these large shifts in consumer behavior—such as the use of local and differentiated market channels, use of online ordering for groceries and food—are of interest to food systems stakeholders, particularly managers of food markets and retailers who have seen changes in their consumer base during COVID-19.

One trend noted during the onset of COVID-19 in the United States was an increased interest and participation in local and regional market channels (Hobbs 2020; Thilmany et al 2020). Even a high-profile New York Times piece on 7 Ways the Pandemic Changed How We Buy Food from September 2020 noted the impact of COVID-19 on food purchasing behavior was the increased interest and local and regional foods, asserting, "The fragility of the supply chain, concerns over health and safety and an appreciation of community have buoyed the movement toward food that is raised or produced locally" (Severson 2020). Researchers have also noted this trend, pondering the extent to which the substitution into local market channels was a reaction to limited supply in other market channels associated with larger, more traditional supply chains, as opposed to an increased importance to the consumer of supporting local business during economically challenging times (Hobbs 2020).

In light of demand- and supply-side shocks to food and agricultural systems during COVID-19, USDA Agricultural Marketing Service initiated its "Local and Regional Food System

Response to COVID-19" project, a collaboration between 16 communities of practice in local and regional food systems, as well as researchers from three universities in the United States. Broadly, the goal of the project was to identify challenges and opportunities facing local and regional food systems during COVID-19, as well as innovations resulting from these unique pandemic circumstances.

In a number of project deliverables, including impact assessments and listening sessions with project partners, the research team was able to capture common themes and priorities related to initial COVID-19 impacts, challenges, trends, and pivots. There were a number of positive impacts, including farmers markets and CSAs, as well as cooperatives and independent grocers, noting an influx of new customers and effective transitions to online sales. This real-time partner feedback suggests that some consumers were, indeed, participating in local and regional market channels more during COVID-19 than during pre-pandemic times for different reasons, and significantly influenced the focus of this survey and research.

In addition to impact assessments, listening sessions, and innovation briefs describing challenges, opportunities, and innovations across local food systems communities of practice, the project's research team also developed and distributed a nationwide consumer survey. The consumer survey was developed with this partner-focused project in mind, so the primary goal of the survey was to glean insights on consumers food purchasing behaviors as they relate to COVID-19, with an emphasis on local and regional market channels. These were the areas of interest for the project partners in informing future decision making and strategy in their respective local food sectors, as well as understanding past behavior.

The stakeholders' primary questions and areas of interest were framed to address two key questions: 1) what consumer characteristics, experiences, perceptions and values drove them to engage new local and regional markets, and what does this suggest for the persistence of newfound consumer interest; and 2) are there patterns and trends we can identify among these new consumer segments to support customer retention strategies moving forward as the COVID pandemic wanes. These stakeholder areas of interest inform the research questions, approaches and findings shared in this paper.

Project and Research Background

Food Markets during COVID-19

When COVID first appeared, there was great uncertainty about how local and regional markets would be affected. Thilmany et al. (2020) estimated that during March through May 2020, local and regional COVID-19 sales and payroll reductions may have led to a national loss of $1.32B loss (10% to 25%) to LRFS. And, Richards and Rickard (2020) report anecdotal evidence that consumers stockpiled frozen fruits and vegetables in early periods of the pandemic, potentially reducing future fresh produce sales. But, there were segments that grew significantly as well. Overall retail food sales increased significantly. In their quick assessment of online local foods sales between April and May 2020, Thilmany et al (2020) found online sales by local and regional food businesses with e-commerce options increased by 360% due both to increases in the number of orders (+189%) and dollars spent per order (+71%).

USDA Ag Marketing Service Local and Regional Food System Programming

To leverage the rich set of stakeholders the "Local and Regional Food System Response to COVID-19" project brought together, including a community of practice coordinating organizations (COPCOs), several elements of applied research were compiled. The value of compiling COVID-related resources and asking member networks to host listening sessions and develop innovation briefs, was it gave our collaboration an effective means to quickly assess the sectors' changing viability and performance during this market disruption (https://lfsCOVID.localfoodeconomics.com/). In outlining a plan of work, the research team recognized that the complex nature of a rapid-response project necessitated a novel approach to framing a consumer survey that would capture the more subtle, time-dependent and nuanced aspects of recent events.

Partner organizations representing direct-to-consumer and retail-oriented channels, like CSAs, farmers markets, cooperative and independent grocers, confirmed the increased attention given to local foods and local market channels. For farmers markets, positive impacts of COVID-19 included "increased sales for some markets/vendors, due at least in part to a higher demand for local food by consumers and markets' rapid action in providing contactless purchasing opportunities" (Farmers Market Coalition, 2020). Likewise, the community of practice representing CSAs noted that "many CSA farms have sold out and have waiting lists" (CSA Innovation Network, 2020). Cooperative and independent grocers also noted new customers and increased sales, perhaps due to perceived cleanliness and safety of smaller format stores, as well as greater product availability compared to larger retailers (Cooperative Grocers, 2020; NGA 2020). This real-time partner feedback suggests that some consumers were, indeed, participating in local and regional market channels more during COVID-19 than during pre-pandemic times.

The consumer survey was developed with this partner-focused project in mind, so the primary goal of the survey was to glean insights on consumers food purchasing behaviors as they relate to COVID-19, with an emphasis on local and regional market channels. These were the areas of interest for the project partners in informing future decision making and strategy in their respective local food sectors, as well as understanding past behavior. Our primary research goal is to understand drivers of consumer behavior changes during COVID-19. In particular, what factors drove an individual's decision to begin using locally differentiated and specialty market channels during COVID-19?

Dataset & Data Collection

A nationwide consumer survey was developed in the Summer and distributed in Fall 2020 to capture information on consumer food behavior in the wake of the COVID-19 pandemic. The finalized consumer survey instrument was distributed to a nationwide consumer panel by Qualtrics in October and November of 2020, resulting in a sample of 5,000 respondents. This survey incorporated elements from existing, validated survey instruments on consumer food behavior, while also including novel adaptations of existing literature to address the specific local and regional market channels of interest, as well as the COVID-19 impacts that may have impacted consumer food behavior.

Survey Time Periods

To address the question of changes in consumer food behavior and possible drivers of these changes, the research team designed and implemented a nationwide consumer survey. This

survey asks respondents to respond to questions related to market channel use, market channel expenditures, and online purchasing in three time periods: September 2019 (pre-COVID), April 2020 (onset of widespread COVID-19 restrictions in the U.S.), and September 2020 ("current" behavior at the time of survey distribution). September 2019 was selected to capture pre-COVID-19 behavior. April 2020 was selected to capture behavior during a month where widespread COVID-19 restrictions had been implemented across the United States. While April 2020 does not capture the initial onset of pandemic restrictions, which occurred in mid-March 2020, April 2020 captures the first full month where COVID-19 restrictions were implemented broadly across the entire US. There is also secondary data showing evidence that consumer food behavior around food-at-home and food-away-from-home spending experienced a substantial shift in April 2020 compared to earlier months (USDA ERS 2020).

September was selected as pre-COVID benchmark a subsequent COVID month for 2019 and 2020 for a number of reasons. The primary reason September 2020 was used is because it was month immediately prior to the month in which the survey was administered, October 2020. September 2019 was selected to represent pre-COVID behavior because it was one calendar year prior to the September 2020 time period, which may contribute to any seasonal impacts of food behavior. In addition, September is a month without any major holidays. September also captures local market channel usage better than a month like December because direct channels like farmers markets, farm stands, and CSAs are generally open and operating in September, whereas a month later in the calendar year, like December, may not capture the usage of these channels in many regions of the country due to seasonality.

Data: Summary Statistics and Trends

Market Channels—Uniquely Disaggregated Choice Set

One unique aspect of this dataset is its inclusion of a uniquely disaggregated choice set of market channels in the survey. Respondents were asked about their participation in traditional market channels (e.g. supercenters, supermarkets), in addition to specialty channels (e.g. butchers and bakers, small format grocery stores) and local and regional market channels (e.g. farmers markets, direct-from-producer farm stands and CSAs). This set of market channel choices included in the consumer survey allows us to capture consumer participation in non-traditional market channels that have seen increased use during COVID-19. We also included a question about whether respondents shopped at a new business in a specialty, local, or regional channel for the first time since April 2020, which captures consumers who newly adopted or increased their use of non-traditional market channels.

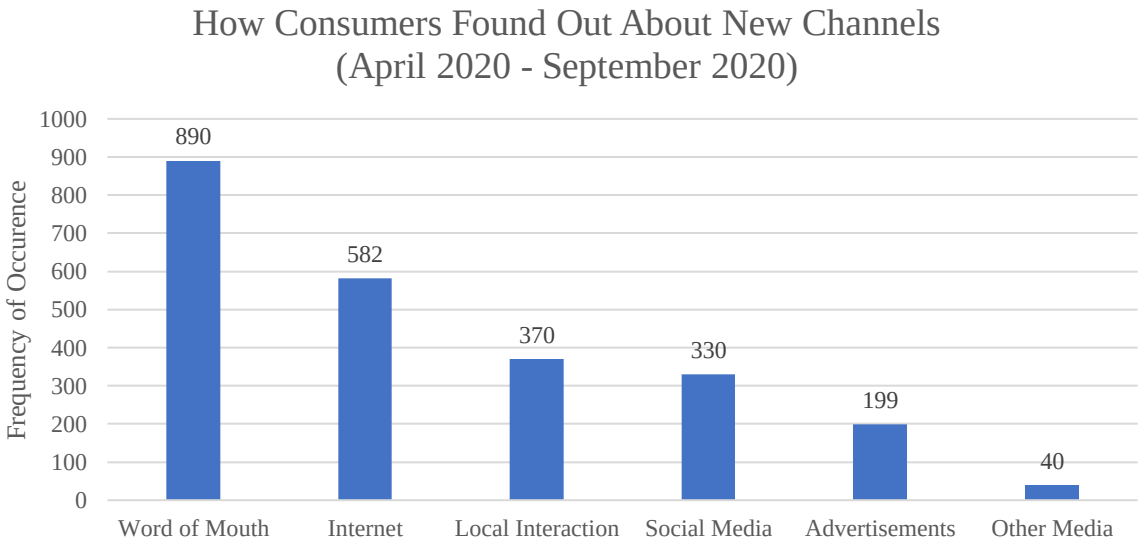
Use of New Market Channels

In addition to asking which market channels they newly visited or purchased from, respondents were also asked, "Did you purchase from a business for the first time, in any of the following categories, in the past 6 months (since April 1, 2020)?," where their options were: CSA; Farmers Market; Direct-from-Producer; Food Box; Bakery, Deli, Meat or Fish Market (gourmet or ethnic); and Local, Independent Restaurant. Of the 5,000 respondents, nearly one third of the sample (n = 1,543; 30.86%) responded that they had shopped at one or more businesses in these channels for the first time since April 1, 2020. In addition, 41.73% (n = 644) of these respondents stated that they newly shopped at a business in more than one of these market

channels. This finding aligns with the insight from project partners who observed higher sales and new customers shopping in their markets.

Respondents were also given the opportunity to share where or how they had learned about the new place, or places, where they shopped since April 1, 2020, in reference to the previously described question. Coded free response answers show that "Word of Mouth" and "Internet" were the two themes with the highest frequency of responses (LFS COVID Webinar 2021). Consumer respondents to this survey primarily learned of new businesses in local and regional market channels through word-of-mouth interactions and through online sources, which is an actionable insight for local retailers looking for marketing and communication strategies for new and prospective customers.

Figure 1. "How Consumer Found Out About New Channels" *This figure* shows the f*requency of occurrence of ways survey respondents found out about the new business they used in local and regional market channels from April 2020 to September 2020. This graphic is based on the original of Dr. Sarah Rocker, presented during the "Consumer Food Insights: Data to Guide Markets Beyond the COVID-19 Era" in April 2020 (LFS COVID April Webinar 2021).*



The following tables describe the total sample using summary statistics and focusing on variables which were most directly aligned to our research questions, such as demographic characteristics, market channel use, market channel expenditures, and food values and perceived consumer effectiveness.

Table 1. Demographics Summary

Variable	Number of Respondents (n =)	% of Total Responses (n = 5,000)
Age		
18 – 24	635	12.70%
25 – 34	883	17.66%
35 – 44	837	16.74%
45 – 54	887	17.74%
55 – 64	818	16.36%
65 and older	940	18.80%
Race		
White	3,637	72.74
Black, African American	676	13.52
Asian	212	4.24
American Indian, Alaskan Native	121	2.42
Native Hawaiian, Other Pacific Islander	60	1.20
Income		
Less than $10,000	302	6.04
$10,000 - $19,999	298	5.96
$20,000 - $29,999	450	9.00
$30,000 - $39,999	430	8.60
$40,000 - $49,999	348	6.96
$50,000 - $59,999	372	7.44
$60,000 - $69,999	320	6.40
$70,000 - $79,999	351	7.02
$80,000 - $89,999	179	3.58
$90,000 - $99,999	379	7.58
$100,000 - $149,999	944	18.88
$150,000 or more	627	12.54

Conceptual Framework

In the food marketing literature, product differentiation is often broken down into two categories: horizontal differentiation and vertical differentiation. In vertically differentiated product markets, consumers share the "same ordinal ranking" of products in that space, with an example being ratings for cuts of beef, like prime or choice (Lusk, Roosen, and Shogren 2012). In horizontal differentiation, consumers do not share any ordinal ranking of products, but may prefer one product over another for its various attributes, which could include products that sustainably or locally produced, for example. While this framework of product differentiation assumes that individuals are selecting only one product out of a choice set of differentiated products, we can apply this general concept of horizontal differentiation to the consumer preferences for differentiated market channels by looking at their use of these channels during COVID-19.

We expand upon existing research related to preferences for "local" by including some as explanatory variables in our model that are unique and align with what was learned from COPCO partner conversations including; consumer respondents' attitudes and values related to food systems, perceived behavior control (PBC), and what could be learned about the respondents' concerns about social norms. We also include variables related to the food market disruption itself—COVID-19 exposure, perceived risk, and changes in income and working status during the pandemic—to capture factors related to personal and public health and income that may impact an individual's shopping habits. We incorporate disruption, values, Perceived Consumer Effectiveness (PCE), and social norm variables following the

Psychology field's Theory of Planned Behavior framework, allowing us to assess the extent to which values and beliefs affect an individual's likelihood of adopting a local or regional market channel behavior during COVID-19 (Figure 2).

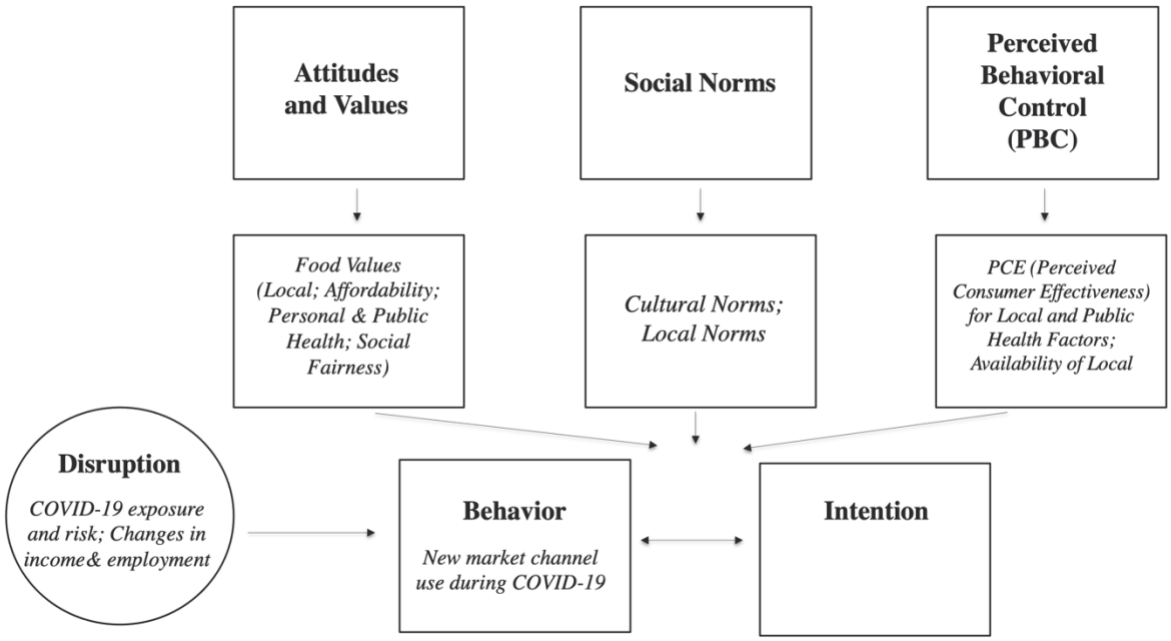


Figure 2. *Conceptual Framework for Use of Local Market Channels During COVID-19. This framework is adapted from the traditional Theory of Planned Behavior Framework and Vermeir and Vebecke's (2006) adaptation for sustainable food products. Bold factors are broad construct themes in the Theory of Planned Behavior and italicized sections represent factors included explored initially in this study to reflect recent events and research questions.*

Food values have been used in the economics literature to understand consumer behavior and preferences, especially in the product space. An extension of food values is the Theory of Planned Behavior framework, well embedded in the consumer psychology literature, which attributes an individual's intention to participate in a behavior to three primary factors: 1) Attitudes; 2) Subjective/Social Norms; and 3) Perceived Behavioral Control (Fishbein and Azjen

1975). This framework has been applied to consumer preference and willingness to pay for different sustainability attributes in food products (Nurse, Onozaka, and Thilmany 2010). While studies have investigated consumer WTP for local food products and products labeled "local" (Onazaka and Thilmany 2010), fewer studies have integrated more nuanced considerations or food values and PCE to understand behavior associated with use of specific market channels.

Lusk and Briggeman (2009) show that food values, which capture more abstract concepts influencing consumers' purchasing decisions, such as "environmental impact" or "nutrition" tend to be more stable over time than preferences for specific attributes or products. Knowing this information, we can assume, to some extent, that food values are relatively stable. For example, the average consumer is unlikely to shift from thinking that "local" is "Very Important" to thinking it is "Very Unimportant" in their food purchasing decisions during the COVID pandemic. This will allow us to see whether the observed growth in local market participation was due existing shoppers and individuals who highly value local food using more local channels, versus discovering if there were new shoppers, less fully aligned with local foods initially, who now began shopping at local channels.

Our research builds upon the framework put forth by Vermeir and Verbecke (2006) and the consumer survey work developed by Nurse, Onozaka, and Thilmany (2010) to apply the theory of planned behavior to local food attitudes and public and personal health attitudes to shifts in consumer food behaviors amidst COVID-19. By expanding these attitudes, social norms, and perceived consumer effectiveness questions to align with what might be new consumer shopping drivers, this study aims to capture factors that are known to drive consumer behavior and

purchasing decisions, and incorporates uniquely relevant factors, like public health and economic disruptions, in this framework, which is critical in understanding the dynamic of consumer behavior during COVID-19 in 2020.

One conceptual framework commonly used in modeling consumer choice in horizontally differentiated markets, and which allows for integration of new variables such as PCE, is the random utility (RU) model. This model framework is characterized by the idea that consumers make decisions by maximizing their individual utility curve, and their choice of one alternative over another, like shopping at a particular market channel, is an outward expression of their "underlying utilities" (Walk and Ben-Akiva 2002). For this type of model, an individual is making selecting one of a set of alternatives.

For our purposes, there are limitations to the traditional random utility models. Random utility models operate under the assumption that an individual is choosing a single selection out of a choice set of alternatives. In the product space, this could be the selection of one brand among all the alternative brands available in the choice set. Unlike in the product space, consumers' market channel choices are often characterized by a combination, or bundle, of market channels used. This can be thought of as the magnitude of consumer participation in a market channel, as opposed to the selection of only one channel. Therefore, we are approaching our research question—What are drivers of consumer adoption of differentiated local and regional market channels during COVID-19?—using the Theory of Planned Behavior framework to understand new and persistent behaviors, as opposed to purely making a singular market channel selection to reveal a discrete choice. We use a logit

and probit model to capture the effects of the factors described above on an individual consumer's likelihood of shopping at a new local channel during COVID-19.

In addition to the Theory of Planned Behavior variables—attitudes, social norms, and perceived behavioral control—we also include food values variables that are known to influence consumers' preferences, including price and convenience (Lusk and Briggeman 2009). Because the behavior changes that we are interested in occurred during the COVID-19 pandemic, we include variables to control for impacts of COVID-19, including perceived health risks due to COVID-19 (whether a respondent perceives themselves to be at high risk of developing COVID-19 complications), COVID-19 exposure (whether the respondent has tested positive for COVID-19), and income changes during COVID-19 (loss of job, loss of income, etc. during COVID-19). We also include a vector of demographic variables, including age, income, race, and whether or not the household has any children under the age of 18. The outcome variable of interest in the first section of our analysis is: individuals' reported use of one or more new local market channel enterprises since April 1, 2020 (as of October 2020).

Model Specification

COVID-Specific Factors

COVID-19 was the impetus for many disruptions that affected consumer behavior. Supply chain disruptions stemmed from labor shortages, public health restrictions, and shifts in consumer demand for essential products, leading to shortages in meat products, for example (Weersink 2021). In our conceptual model, COVID-specific factors like perceived risk of

illness and complications, history of exposure to COVID-19, and changes in income and employment status during COVID-19, represent disruptions that may impact behavior.

Connecting COVID-19 drivers to the Theory of Planned Behavior model framed above, there are also several values and perceived behavioral control questions related to both personal and public health to capture COVID-specific factors. Based on listening sessions with local food systems stakeholders—CSAs, farmers markets, independent and cooperative grocers—there was a shared sentiment that many new customers in these channels turned to local food because of perceived safety and cleanliness, online and no-contact access to food, and availability of products that were unavailable in larger retailers with a more impacted supply chain (e.g. meat and flour) (CSA Listening Session 2020; NGA Listening Session 2020; Farmers Market Listening Session 2020; Cooperative Grocers Listening Session 2020, posted at: https://lfscovid.localfoodeconomics.com/). We hypothesize that higher perceived risk of COVID-19, exposure to COVID-19, greater value placed on personal and public health protocols, and perceived impacts of COVID-19 on diet and shopping all had a *positive* effect on a consumer's use of a new, local market channel from April to September 2020.

Local Food Factors

There is a body of literature that suggests that certain local-specific food values may influence a consumer's preference for local food products. Mehrjerdi and Woods (2020) used consumers responses to the survey question "How important is local food to your customer choices?" to explain frequency of local food product purchases at different market channels. We hypothesize that individuals with higher reported levels of local-oriented food values,

including valuing locally-produced food and purchases that support the local economy, were *more likely* to adopt a new, local market channel between April to September 2020.

Other Food Values

In addition to local food values and COVID-19 factors, we included other food values that have been known to influence consumer preferences for differentiated products, including affordability and social fairness. Preference for affordability and preferences for local food products has been shown to have a negative relationship in other research (Nurse, Onozaka, and Thilmany 2010). For example, CSA partners noted during a listening session that while CSA sales increased during COVID-19, the CSA model still appeals more to customers who can afford the large upfront payment to cover a "share" of their farm's produce (CSA Listening Session 2020). We hypothesize that this relationship will hold in our model, where respondents who highly value affordability in their food purchasing decisions are found to be less likely to shop at new local and regional channels during COVID-19.

The dependent variable in the following logit and probit models is the binary variable of whether or not the respondent shopped at a business for the first time in the one or more of the following local market channels: CSA, Farmers Market, Direct-from-Producer. The subsample that meets these criteria total 808 of the 5,000 total responses. The following two models include explanatory variables in three primary categories: 1) demographics; 2) COVID-19 factors; and 3) food values, PCE, and social norms construct variables from the Theory of Planned Behavior conceptual model. Reference groups for the following categorical dummy variables are: Race-White; Cov – combined "Definitely did not have

COVID," "I don't know," and "Prefer not to answer"; Covrisk – No risk, I don't know, and Prefer not to answer; Covinc – No change in employment or income.

Table 2. *Overview of Food Values, Social Norms, and PCE Variables*

Statement	Construct Type	Variable Name
FV Statements: Suppose you are shopping for food, and are deciding what to buy. Please indicate how important the following factors are in your decision (check one for each). (1-7)		
…that I feel confident in the safety protocols of the retailer/store where I am shopping.	Attitudes	fv_protocols
…that I have options about my purchasing method (e.g. online ordering, delivery, in-store pickup, etc.)	Attitudes	fv_options
…that it is locally grown.	Attitudes	fv_locallygrown
…that it supports the local economy.	Attitudes	fv_localecon
…that my purchase supports the food business that I am buying from.	Attitudes	fv_fbsupport
…that it meets my traditional/cultural preferences.	Attitudes	fv_cultural
…that my purchase supports businesses owned and operated by historically underrepresented groups (African American, Hispanic, Native American, people of color)	Attitudes	fv_underrep
…that it is affordable.	Attitudes	fv_afford
…that it has been produced and handled by people I know and trust.	Attitudes	fv_trust
PCE Statements: Please read each statement and check the number that best describes your feeling. (1-7)		
I would be willing to make personal food consumption sacrifices in consideration of public health concerns of COVID-19.	PCE	pce_sacrifices
Doing my part to reduce the spread of COVID-19 is important to me.	PCE	pce_covspread
COVID restrictions impacted what, where, and how I buy food.	PCE	pce_covshopping
COVID disruption has affected my ability to buy food to meet the same dietary quality that I had 1 year ago.	PCE	pce_covdiet
I believe that what I choose to buy and where I choose to buy food can have an impact on the local economy.	PCE	pce_localecon
I believe local food products are easily available.	PCE/Availability	pce_localavail
People who are important to me think I should buy local food products.	Social Norms	pce_localpeers

Results

As a best practice robustness check, we estimate both a logit and probit form of our model specification. All significance levels remain stable across the two models. Age and income are included as ordinal variables, with each level representing a one-category increase in the group of age (grouped by 10 year categories) or income (grouped by $10k categories) to which the consumer belongs. Both age and income are highly significant. The age effect is negative, suggesting that older consumers were less likely to shop somewhere new in a local market channel, all else being equal. The income effect is positive, indicating that higher income consumers were more likely adopt a new local food shopping channel. This aligned with our hypothesis. Consumers with children under the age of 18 in the household were highly significant in the positive direction, as well. Increases in at-home schooling likely impacted many families' food purchasing strategies and share of meals prepared at home, perhaps with local and regional market channels best meeting unique needs of families with children. None of the race variables were highly significant, suggesting that race is not a main driver of consumers adoption of new local food markets.

Table 3. *Logit and Probit Regression Results for New Participation in Local Markets*

Variable	Logit	Logit (Odds Ratio)	Probit
Demographics			
Age	-0.200*** (<0.000)	0.819*** (<0.000)	-0.105*** (<0.000)
Income	0.046*** (0.001)	1.047*** (0.001)	0.023*** (0.002)
Race			
Black	-0.119 (0.356)	0.888 (0.356)	-0.066 (0.363)
Asian	-0.538** (0.034)	0.584** (0.034)	-0.306** (0.022)
American Indian, Native Alaskan	0.193 (0.413)	1.213 (0.413)	0.113 (0.407)
Native Hawaiian, Other Pacific Islander	-0.015 (0.964)	0.985 (0.964)	-0.016 (0.935)
Yes, Children Under 18 in Household	0.353*** (<0.000)	1.423*** (<0.000)	0.199*** (<0.000)
COVID-19 Factors			
	Logit	**Logit (Odds Ratio)**	**Probit**
"Did you or anyone in your household have, or potentially have, COVID-19? (cov_)			
Definitely Yes, have been tested	0.581*** (<0.000)	1.788*** (<0.000)	0.352*** (<0.000)
Probably Yes, but have not been tested	0.575*** (<0.000)	1.777*** (<0.000)	0.329*** (<0.000)
Probably No, but have not been tested	-0.139 (0.208)	0.871 (0.208)	-0.069 (0.243)
"Are you, someone you live with, or someone you in close physical contact with, at high risk for developing complications related to COVID-19?" (covrisk_)			
Yes, high risk	0.102 (0.296)	1.107 (0.296)	0.066 (0.220)
"Have you or anyone in your household experienced a change in income or job since the COVID-19 outbreak (April 2020)?" (covinc_)			
Lost Job	0.159 (0.231)	1.173 (0.231)	0.089 (0.230)
Furloughed	0.440*** (0.006)	1.552*** (0.006)	0.234*** (0.010)
Reduced Hours or Income	0.399*** (<0.000)	1.490*** (<0.000)	0.219*** (<0.000)
Increased Hours or Income	0.741*** (<0.000)	2.098*** (<0.000)	0.436*** (<0.000)

Theory of Planned Behavior Constructs			
	Logit	**Logit (Odds Ratio)**	**Probit**
Food Values and PCE: Public & Personal Health			
fv_protocols	-0.049 (0.269)	0.952 (0.269)	-0.022 (0.366)
fv_options	0.053 (0.159)	1.054 (0.159)	0.028 (0.155)
pce_sacrifices	0.058 (0.168)	1.060 (0.168)	0.034 (0.137)
pce_covspread	-0.139*** (0.001)	0.875*** (0.001)	-0.071*** (0.002)
pce_covshopping	-0.050 (0.172)	0.951 (0.172)	-0.023 (0.243)
pce_covdiet	0.171*** (<0.000)	1.186*** (<0.000)	0.089*** (<0.000)
Food Values and PCE: Local Food			
fv_locallygrown	0.217*** (<0.000)	1.242*** (<0.000)	0.115*** (<0.000)
fv_localecon	-0.007 (0.874)	0.993 (0.874)	-0.005 (0.834)
fv_fbsupport	-0.035 (0.467)	0.966 (0.467)	-0.021 (0.418)
fv_cultural	0.136*** (<0.000)	1.146*** (<0.000)	0.073*** (<0.000)
fv_underrep	0.076** (0.037)	1.079** (0.037)	0.040** (0.041)
fv_afford	-0.211*** (<0.000)	0.809*** (<0.000)	-0.114*** (<0.000)
fv_trust	-0.018 (0.672)	0.982 (0.672)	-0.014 (0.527)
pce_localecon	-0.026 (0.570)	0.974 (0.570)	-0.009 (0.721)
pce_localavail	0.089** (0.021)	1.093** (0.021)	0.053** (0.011)
pce_localpeers	0.125*** (0.001)	1.133*** (0.001)	0.067*** (0.001)
Constant		0.042*** (<0.000)	

Conclusions

These initial findings suggest that COVID-19 factors, including COVID-19 exposure and changes in income since the onset of the pandemic, were highly significant and positively related to the likelihood of an individual participating in a new local channel. Other COVID-related attitudes and PCE statements were highly significant and positively

related to new channel use, including the individual's level of agreement with the statements "Doing my part to reduce the spread of COVID-19 is important to me" and "COVID disruption has affected my ability to buy food to meet the same dietary quality that I had 1 year ago." These findings are valuable to retail-oriented market channel operators in the sense that there is evidence of COVID-19 impacts being a significant factor in new market channel use.

In the absence of public and personal health considerations related to COVID-19, which will likely be the case moving forward, what can local market channels expect in terms of new customers, customer retentions, and magnitude of market channel participation? Key extensions of this research will include a two-stage model to capture "persistence" of the new market channel behavior described in this paper. There is also an opportunity to investigate meaningful consumer segments based on market channel use, online shopping, market channel expenditures, and other rich data from this survey, perhaps through latent class analysis. These marketing insights into consumer behaviors are actionable and valuable to local and regional market channel practitioners, which is the overall goal of this consumer survey research project.

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