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COVID-19 Impacts to the Supermarket Industry: A Framework of Major Long-Term and Short-Term Changes in Consumer Behavior

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Abstract: *Once the initial shock of the COVID-19 pandemic was absorbed by supermarket operators, who struggled to keep up with closures, unpredictable demand, and federal and state regulations being decided upon and enforced daily and weekly, the industry discussion then turned quickly to "what will stick". Trying to categorize initial consumer responses that would dissipate post-pandemic versus those that would last long-term, became the focus of the industry; both on the consumer packaged goods (CPG) side, as well as the reseller (supermarket) side. This paper uses the impact of the COVID-19 pandemic of 2020 to help aid retailers and consumer packaged goods companies determine future food industry consumer traits, buying patterns, and other activities. The implications of this paper are to suggest to food marketers the long-term food industry behavioral shifts we are seeing from the COVID-19 pandemic of 2020. The information was gathered primarily from panel discussion interviews of eighteen food industry executives representing over $300B US$ in sales and sectors of the food industry including retailers, consumer packaged goods, brokers, wholesalers, and sales. Research suggests the potential major changes to the grocery industry from the pandemic of 2020 can be grouped into cooking and health, supply chain analytics, assortment, fulfillment, and suppliers. These five areas contained 86.7% of responses from the n=120 panel responses. The study then transitions into specific strategies for practitioners.*

Keywords: *food marketing, consumer behavior, COVID-19, coronavirus, supply chain, cooking, health.*

I. Introduction And Theoretical Review

The COVID-19 pandemic had a major initial impact on the supermarket industry, including impacting consumer food buying patterns and habits in food stores, supply chain, in-store operations, and consumer behavior. Additionally, the shifting of food and beverage consumption to home, when restaurants and bars were closed, resulted in new cooking and eating behaviors. Add germ avoidance and social distancing, and the supermarket industry experienced drastic changes in food offers, packaging, supply chain, customer delivery, meal preparation, and sanitation.

As the pandemic continued, the question for researchers and practitioners shifted from *what to do* in response to the pandemic, to *what changes will remain* post-pandemic. The following study was undertaken to provide a conceptual framework under which possible long-term shifts can be discussed, and which changes were temporary results from pandemic responses of consumers and governments. A combination of secondary information, primary research in the form of food expert analysis, and primary data in the form of free-flow panel interviews, is synthesized to suggest insight into the possible long-term changes in consumer buying patterns and food consumption. This research was undertaken to determine which changes seen during the pandemic of 2020 reflect an acceleration of trends already in place, and therefore have the potential to remain as long-term shifts in consumer behavior; plus, which changes seen during the pandemic of 2020 reflect initial reactions to the situation, and therefore will potentially be solely attributable to short-term shifts in consumer behavior; likely going away post-pandemic?

The contribution of this research to the industry, and the importance of the results is two-fold: helping aid retailers and consumer packaged goods companies in their strategic planning for post-pandemic; allow smaller independent retailers a viewpoint to utilize when allocating limited resources towards consumer-centric store layout, assortment planning, and platform development.

1.1 Pandemic consumer behavior responses

Many studies point to various consumer responses to major events, like a pandemic, including careless in-store behavior, seeking new services, panic buying, cooking behavioral changes, sensitivity to the in-store environment, and moving to online shopping for groceries (Erikkson and Stenius, 2020). Reactions to major global disasters point to responses along the lines of governmental policy, generational cohort, demographic, and stockpiling (Baker, 2020; Zwanka and Buff, 2020; Kelley, 2021). Mathur et al (2003) point to stressful life events resulting in intensification or changes in consumption habits, as stress-relief mechanisms. Replenishing items has also been cited as consumer drivers translated into buying patterns (Larson and Shin, 2018). Debevec et al. (2013) point to major cataclysmic events producing a change in society and values, especially as applied to generational cohorts. Rational and irrational panic-buying is a normal reaction to events like the pandemic (Martin-Neuninger and Ruby, 2020; Sterman and Dogan, 2015).

1.2 Pandemic consumption responses

Other studies suggested patterns of increased acquisition and buying demonstrated immediately after the event which was followed by decreased consumption in the long-term; with some respondents indicating they were no longer willing to over-consume, less likely to overspend, and more careful in their choices (Kennett-Hensel, Sneath & Lacey, 2012). Consumption, in non-pandemic times, involves need recognition, alternative evaluation, purchase, use, and evaluation of products and services (Mehta et al, 2020; Valaskova et al, 2015). Flatters and Willmott (2015) linked purchasing goods to maximizing utility, satisfaction and joy. Solomon (2016) related these individual factors to micro consumer behavior, and pointed to social issues creating macro consumer behavior.

1.3 Pandemic economic and career responses

Related to the economy, job displacement and career vectoring will impact the workplace; with subsequent impact on purchase patterns. The shift towards entrepreneurship and gig work was underway even before the pandemic among youth, who are three times as likely to be unemployed as adults over the age of 25. The normal service and hospitality industry jobs are just not there (Kelley, 2021). Griffith, O'Connell and Smith (2016) report households responded to worsening economic conditions "smoothing two aspects of consumption" by switching to calories that were cheaper in real terms. The result was increased shopping effort and decreased consumption by changing the nature of the shopping basket (Ibid, p.274). Steenkamp and Maydeu-Olivares (2015) found consumer traits largely stable, but stated stability does not preclude change after cataclysmic shifts in buying power. They also noted consumers price consciousness was more susceptible to changes in the external environment than any other traits (Ibid., p. 302). We could expect consumers to manifest price sensitivity post- COVID-19.

1.4 Pandemic essential employee impact

Regarding employee treatment, the supermarket workers were forced to complete their normal tasks, while also being asked to monitor customer adherence to pandemic guidelines (i.e. “mask police) due to all stores having to erect physical barriers between employees and customers. Food operators deemed their employees essential, based upon their presence on the frontline of the pandemic (Allee, 2020). The terms “essential workers” and “contact free transactions” became commonplace during the pandemic. This additional stress on the food system, and its employees, was unprecedented. Employees were asked to work longer hours, be front and center with a public that is being told to maintain social distancing, and were working without personal protective gear, at least at the beginning of the pandemic (Kinder, 2020).

1.5 Pandemic impacts long-term and short-term

Regarding predictions of what changes might become permanent, and which ones were solely temporary results from pandemic buying, there are multiple sources of opinions and secondary data results. Many of the ideas stemmed from a few key areas: less samples, less one on one interaction, less open bins of seeds, beans and candy, accelerated trends that were already in place to happen, a supply chain that will be more equipped to respond to unplanned demand spikes, less assortment, and proactive safety and sanitation procedures. According to Nielsen (2020), it is possible the populace will return to the practice of pantry loading and maintaining an inventory of medical supplies and shelf stable provisions, having seen inventory disruptions during the pandemic of 2020. According to Nielsen, the shift to online purchasing of food is one that will likely remain with a higher percent of the population than before the pandemic (Nielsen, 2020). Stanton (2020) mentioned stock up, and the inability to stock up, due to economic conditions, impacting "people on the margin" more than those with the economic means to react by increasing their at-home food supply.

II. Research Contribution

According to McKinsey, the consumer packaged growth model of building out assortment in parallel with growing economic wealth has been little changed since post- World War II (Kopka et al, 2020). Trend impact on consumer packaged goods, and how to stay ahead of customer consumer behavior shifts has become top of mind with consumer packaged goods companies. Customer relevance and disruptive trends are the future of growth in consumer goods, instead of margin expansion. In fact, for the last ten years, margin expansion has contributed twice as much to value creation than growth, in consumer goods (Ibid.). Being able to contribute to consumer trend, disruption, and commodity trade-offs can greatly enhance agility and effectiveness of consumer goods companies. In this study, we are attempting to ascertain future consumer behavior shifts, effecting from patterns developed during pandemic buying shifts.

III. Research Methodology

In order to determine common themes, a conceptual framework was necessary to aid in answering the R1 and R2 questions. Multiple food industry professionals needed to be approached. Their insight was to be gathered as exploratory, in order to potentially use the themes revealed by respondents for future predictive research.

3.1 Respondent recruitment

Food industry insight was sought through a series of industry interviews, facilitated by multiple panel discussions in what was called the "Wednesday Wake Up" virtual sessions of experts hosted by the Frozen and Refrigerated Association of the North East (FRANE, 2020) and a panel discussion named "Supply Chain Learnings from the Pandemic" hosted by Western Michigan University's Food Marketing team (FMC, 2021). Each interview was focused on one sector of the industry: retailers, suppliers, brokers, supply chain, and future leaders. In these panel discussions, moderated by a marketing professor at Western Michigan University, the companies represented in the interviews included 18 companies with aggregated volume over $300 billion in sales, with 150 other attendees available to ask questions. The companies included:

Retailers (conducted on October 28, 2020): Stop & Shop (Ahold), Bozzuto's, Highland Park Markets, Roche Brothers, C&S Wholesale Grocers
Suppliers (conducted on December 2, 2020): Palermo Villa, Westfield Egg Farm, Ateeco (Mrs. T's Pierogies), Sargento Food
Brokers (conducted on January 27, 2020): Metro Foods, Johnson O'Hare, Acosta (FRANE panelists, 2021)
Supply Chain Learnings (taped February 22, 2021): Procter and Gamble, Kimberly-Clark, Target, Clorox, SpartanNash, Meijer (FMC panelists, 2021)

Interviewees and panelists were recruited from FRANE membership, and from the Western Michigan University Food Industry Advisory Board. These companies represent a majority of the population of the United States, and the results of the responses can be used directionally for insight into various company perspectives inside the food industry.

3.2 Question flow

Each interviewee was given the same questions, and was asked in the same question flow, so as to allow for synthesis of instrument results; and to give an opportunity to summarize responses in a cohesive manner; looking for patterns in responses. The audience was also asked to submit questions, which allowed a free flow of ideas and allowed further elaboration of perspectives. The two main goals of the questions were:

R1: Which changes seen during the pandemic of 2020 reflect an acceleration of trends already in place, and therefore have the potential to remain as long-term shifts in consumer behavior?
R2: Which changes seen during the pandemic of 2020 reflect initial reactions to the situation, and therefore will potentially be solely attributable to short-term shifts in consumer behavior; likely going away post-pandemic?

3.3 Survey questions

The flow of questions for each interview/panel:

Overall comments of last six months:
- We all experienced the shock, then stock-up, the adjustments, etc.
- Additional comments, focused on the positives and maybe some examples of going above and beyond for customers.

Biggest surprise item or hoarding story:
- Did anything in your product line surprise you?
- Any particular item or category that stood out, or took off during pandemic?
- Did you have any items that were about to be discontinued that were saved by 2020?
- Are there any unique stories of dealing with the broker/retailer/cpg relationships?

Initial changes:
- What are you doing about stockouts?
- Is there significant de-sku'ing going on?
- How are you helping the brands navigate the new world of even less in-person interaction?
- How are you reacting to customers' desire to shop less, but buy more when shopping?
- Any shortages in supply?

Changes that will stick:
- This is where we could spend time talking about how our industry is essential and how you have more fully integrated into your customers' lives.
- Do you think cooking and baking will stick?
- Batching purchases by customers?
- Online vs. in-person?
- Less sku's, shelving changes, etc.?
- Are there significant changes to your business model going forward?

Additional questions:
- Retail grocery has had a record breaking 2020 with frozen foods leading the charge. Most companies have picked up new users along with current consumers buying more often. What do you think will happen in 2021? Will the levels of sales in 2020 be a new starting point for growth or a one time a nominally?
- What are your growth rates for next year?
- Are you seeing opportunities to go direct to consumer?

Note, as these sessions were with a panel of food industry practitioners, the interview questions were not taken through statistical fit models. The intent was a structured question flow, with an opportunity for open-ended responses of the panel. It is also possible bias was introduced in the free flow discussion by the moderator, a food marketing professor with published articles and books on COVID-19 food industry impacts. The subject matter expertise of the moderator was decided to be more valuable to the flow of the conversation, especially when probing for further insight, than if a neutral moderator had been used; with somewhat less industry credibility.

IV. Data Analysis and Results

The interview results, including the questions from attendees, provided feedback and perspectives on the future. In total, there were 120 responses over the four panel discussions. An aggregation of the comments, responses, and follow-ups, using descriptive statistics, points to key themes when considering potential long-term changes to the post-pandemic supermarket industry. As a tag cloud (Figure 1), the raw data responses pointed to home, cooking, health, and stockouts as the words most used by respondents.

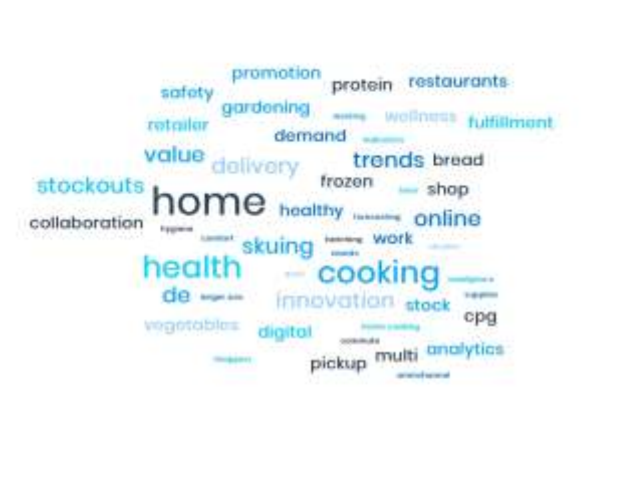

Figure 1: Tag Cloud Raw Responses

From the raw data responses, we then categorized the raw words into cohesive groups, in order to form buckets of similar responses and make the data more manageable to analyze (Table 1). In this first categorization, 32.5% of the responses fell under Eating and Cooking at Home; while 27.5% fell under Supply Chain and 20.8% fell under Health and Wellness.

Responses Categorized 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Eating and Cooking at Home	39	32.5	32.5	32.5
	Health and Wellness	25	20.8	20.8	53.3
	Local and Regional	2	1.7	1.7	55.0
	Overall Trend Acceleration	3	2.5	2.5	57.5
	Remote Working	4	3.3	3.3	60.8
	Supply Chain 1	33	27.5	27.5	88.3
	Assortment Decrease	6	5.0	5.0	93.3
	Innovation Increase	2	1.7	1.7	95.0
	Virus Safety	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

Table 1: Responses Categorized 1

From this point, we made another categorization of the data for the following reasons (Table 2):

- Difficulty to discern between Eating and Cooking at Home and Health and Wellness. For example, words like pickling and canning, residential eating, cooking at home, health and wellness, and healthy eating will have *similar* go to market strategies for the practitioner.
- Supply Chain was too general, and needed a delineation between Analytics, Assortment, Fulfillment, and Supplier. This separation was made for the opposite reason we combined Eating and Cooking at Home and Health and Wellness: these four areas of Supply Chain would have *different* go to market strategies for the practitioner.

In the new categorization, Cooking and Health went to 55% of responses, while Supply Chain Fulfillment was 12.5%, Supply Chain Assortment was 10%, and Supply Chain Analytics were 9.2%.

Responses Categorized 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cooking and Health	66	55.0	55.0	55.0
	Overall Trend Acceleration	3	2.5	2.5	57.5
	Remote Workplace	4	3.3	3.3	60.8
	Supply Chain Analytics	11	9.2	9.2	70.0
	Supply Chain Assortment	12	10.0	10.0	80.0
	Supply Chain Fulfillment	15	12.5	12.5	92.5
	Supply Chain Suppliers	3	2.5	2.5	95.0
	Virus Safety	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

Table 2: Responses Categorized 2

V. Strategic Impact For Practitioners

Cooking and Health, along with Supply Chain Fulfillment, Supply Chain Assortment, and Supply Chain Analytics, encompassed 86.7% of the responses from food industry executives in the panels, as potential areas for long-term consumer behavior impacts from the pandemic. Supermarket businesses could see potential impacts to their business reflected in in-store cooking and use of kitchens for takeaway meals, less overall assortment for higher days of supply for the main assortment, a need to The main areas of focus from each stream can be seen in Table 3.

Cooking and Health	SC Fulfillment	SC Assortment	SC Analytics
Cooking at home	Online delivery/pickup	De-sku'ing	Leading indicators
Baking at home	Micro-fulfillment	Smaller stores	Digital stockouts
Health and wellness	Dark stores	Less innovation	Pulled back promotions
Nutrition	Stock up		Consumer decisions
Beauty	Multi-serve sizes		

Table 3: Main Areas of Focus

5.1 *Cooking and health*

With the increase of cooking at home for the utilitarian reason of feeding your family, and the increase in baking at home as a family activity, preparing food at home could possibly be the most impactful result of the pandemic on consumer behavior for the food industry. Categories, like the baking section and the spice section, saw a resurgence that was unpredicted. As restaurants re-open, it is quite possible the value proposition of cooking at home, plus the healthiness of controlling your own ingredients, will make cooking and baking at home a long-term impact. One study showed 54% of the population cooking more than they had pre-pandemic, and 35% enjoying cooking now more than previously (Yoon, 2020).

Cooking at home fits the health and wellness trend of being able to control your own ingredients, minimize bad additives, and experiment a bit. Food company executives, from Campbell's to Kellogg's expect the focus on health and wellness to remain after the pandemic (Wernau and Gasparro, 2020). Being in control of your own ingredients is also a great way to have some control over your situation, a secondary impact seen as a common response need during uncertain times. Baking has been described as a sort of self-care, and stress reliever (Brasted, 2021). Baking was taken up as a hobby or an activity to have with the family. It was not born of necessity, but came to the forefront as a family activity. The number of social sites devoted to cultivating live yeast, plus the fact yeast was not found in any store for months, is a testament to the potential staying power of baking.

In other areas of the store, frozen foods grew at a faster rate than the rest of center store, and the re-emergence of frozen foods as an option could see this trend continue (Devenyns, 2020). Frozen food popularity seemingly grew as a result of the inability of fresh foods to stay fresh for more than a few days, and the consumer desire to stock up during quarantine. Cannabis products and hemp-derived Cannabidiol, Cannabigerol, Cannabinol as a natural way to maintain homeostasis and ward off viruses and diseases (Zwanka, *The ABC's of THC and CBD*, 2020) continued and accelerated a trend already in effect. Pickling and canning is another trend that grew during pandemic, and has the potential to last long-term. Directly impacted by food insecurity and supply chain issues, plus the desire to be in control of your own supply, were reasons cited for why pickling and canning gained in popularity.

Everything from local foods to regional tastes, the desire to "support local", as well as the customer impression local means healthier, grew local demand higher during the pandemic. In one survey, 35% of respondents said they had begun to buy more local foods, and 87% said they would continue to buy local foods post-pandemic (Kapur, 2021). Plus, the description "local" expanded outside of its typical arena of produce to meats, sauces, condiments, and bakeries. Direct ordering from farms trended positively, so retailers will need to monitor the diversion of farm products going direct to consumer and bypassing the reseller. Direct farm marketers saw 30-50% sales increases in 2020, and that could continue to fit into the "buy local" model (Goldy et al, 2020). The intrinsic "feel good" aspect to supporting your local farmers, bakers, and purveyors may potentially ensure this practice of focusing on local and regional will continue.

As restaurants shift to delivery and takeout-only models, the customer may show a desire to return a portion of their food purchases back to restaurants, which will have implications for supermarkets. It is also possible, due to the awareness of viruses and germs, self-serve hot bars and salad bars will go away as a consumer meal solution, and that may send customers back to restaurants for takeout.

5.2 Supply chain impacts

With the unease around touching anything, maintaining social distance and masking, the uptick of online ordering and delivery/ pick-up accelerated five years of trend in only a few months. In 2019, 81% of customers had never bought groceries online. By fall of 2020, 79% of shoppers had ordered groceries online. Other astounding facts are online grocery sales increased from $1.2B US to $7.2B US by mid-year 2020, and number of online customers increased from 16 million to 46 million by mid-2020 (Morgan, 2020). In fact, neighborhoods formed social media clubs discussing how to actually land a pick-up time slot. Many customers had grocery orders ready to checkout on multiple apps, just so they could grab a delivery time slot on one of them (Stanger, 2020).

As has been noted previously, when discussing which consumer behaviors will be long-term and which will abate post-pandemic, many respondents mentioned the following: if it was not a value pre-pandemic, then it will not be a value post-pandemic. Here is where store pick-up could win over delivery: waiting for a delivery in a three to four hour block is not a value to most customers, as they return to commuting and offices. One study showed 52% of respondents were using online ordering to save time, versus using online for health safety (Clark, 2020). At some point, the number of "shoppers" in the aisles shopping for other shoppers is leading many retailers to use "dark stores", or those stores operating as regular stores; but only for online order fulfillment (Frye, 2020). This trend started in the United Kingdom with Tesco, and is growing in popularity. The increased trusting of Instacart, Shipt, and Postmates to engage with the customer on behalf of the retailer is a situation that will be evolving in the food industry. Similar to "dark stores" are "ghost kitchens", where the retailers can solely cook for off-premise consumption (Zwanka, 2021).

As the in-store experience became more restricted, many customers began shopping less and buying more when they shopped; or they "batched" their orders. As confidence in the supply chain resumes, it is possible batching of orders will continue in shelf-stable foods. This implication is primarily for center store shelf-stable foods, since fresh foods cannot be "stocked up".

Many, if not all, manufacturers eliminated extra flavors or sizes, in order to keep up with the increase demand of the more popular flavors and sizes. This situation has been received positively by many stakeholders, as reported by the respondents. Customers relate they like the easier decision making process, retailers state they like the ability to have a focused inventory, and manufacturers are able to streamline their production facilities. "Less is more" is a common term used in Category Management, so it is possible a streamlined assortment will stick. An efficient and effective assortment is one of the base tenets of Category Management, which is practiced by retailers and consumer packaged goods companies worldwide (Zwanka and Harris, 2016). To compound the apparent need for less assortment is the fact that online orders, and standard orders, tend to be repetitive in nature; which makes assortment loyalty seem even higher (Reiley, 2020).

Stores were already shrinking in square footage, due primarily to online shopping. The amount of variety a customer can access digitally no longer means the stores have to carry the "long tail" variety. With the trend in online ordering, it is possible store footprints will continue to decrease. It is possible we will see pick-up friendly stores, more stores set-up for ease of online pick-up or delivery. It is also suggested there will be areas that allow you to park, have your online order delivered to your car as you pick up a ready-made meal/meal kit for tonight's dinner; plus, pick up your prescriptions. For stores inviting you inside, "all self-checkout", or even "no checkout" technology is gaining favor with retailers and their customers (Berg, 2021).

From truck driver shortages to raw material shortages, and even to the lack of dry ice supply since it is used for virus vaccine transportation, supply chain may continue to be a top of mind story in the food industry for years. The ability of retailers and producers to use supply chain as a competitive advantage should be a major part of all company strategies.

VI. Implications for Marketers, Practitioners, and Governments

The implications for three major stakeholder groups are vital for the future of the industry: marketers, practitioners, and governments.

6.1 Marketers

As marketers shift back to pre-pandemic activities, and many pandemic consumer behavioral changes remain in effect, the marketing message and value message will need to integrate the new paradigm; such as a mixing of online ordering and in-store shopping, meal solutions pre-cooked and/or ingredients, and even less focus on promotions and more focus on everyday value and the themes of local, healthy, and fresh. Additionally, embracing the role as "essential" could solidify the true purpose of supermarkets, and their impact on consumers' lives.

6.2 *Practitioners*

As the primary focus of the past thirty years has been a streamlined supply chain paired with a well-developed assortment, the supply chain may need to be rebuilt with "safety stock" in the system. Increasing days of supply in the supply chain increases overall costs, but may be offset by maintaining the decreased variety that became prevalent during the pandemic. Additionally, practitioners may need to fully develop a balance between fulfilling online orders and satisfying in-store customers, especially as it comes to in-aisle fulfillment by both third-party and retailer personnel shopping for online orders.

6.3 Governments

Supply chain was stressed and broken in many areas, and the global aspect of the food industry was exposed. As governments imposed restrictive intervention, either through tariffs, quotas, or subsidies, the supply chain became a matter of national security. Governments have a primary responsibility to ensure the health and safety of their citizens, and the food supply is vital to accomplishing this goal. Viewing the nation's food supply as essential, and securing alternate sources for key commodities, could be seen as a major implication of the pandemic.

VII. Research Limitations and Future Research

The panelists responses were quick, and sometimes doubled-up each other, so the linking of who made which comments and whether or not they were in consumer packaged goods, were retailers, were supply chain experts, or were brokers, was not done. Future research may wish to link the responses to the sector of the food industry. According to researchers at Western Michigan University's Food Marketing Lab, the following questions will need to be answered: How enduring are the market alternatives for ordering and delivering food that emerge during an emergency? Are consumers' food provisioning and consumption preferences permanently changed? Does the food hoarding that emerges in an emergency continue when normalcy returns? What types of food consumption behavior increase individuals' sense of control in an epidemic? How does food consumption behavior impact or interact with attitudes such as hopefulness, fear and despair? (Veeck and Jie, 2020).

Additional limitations include the descriptive nature of the responses. As exploratory in nature, in order to ascertain overall themes from food industry executives, the results cannot be said to be predictive in nature, and are not able to be undergo statistical regression analysis; therefore, this research is best seen as a conceptual framework for future longitudinal research.

VIII. Conclusion

The food industry was elevated to "essential" status during the pandemic of 2020, and many trends already taking place were accelerated as a consumer response to restrictions implemented during forced quarantines and closures. Many of these changes will remain as permanent consumer changes, but not all of them will. One guiding statement heard from many respondents was to follow this direction: if it was not a value pre-pandemic, it will possibly not be a value post-pandemic. The responses reported in this conceptual framework should be able to serve as guidance for food industry marketers, practitioners, and governments.

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