STRONG PARTNERSHIPS

lead to

Supply Chain Iccess

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Before the COVID-19 pandemic, the logistics industry was undervalued. Our nation's system for producing and moving goods worldwide

experienced unexpected pressures causing a significant impact on the economy. For the foodservice industry, in particular, the complexities of the global supply chain are extensive, allowing us to grow,

Disruptions in the process, labor shortages, shutdowns, travel bans, and other restrictions created a chain reaction impacting each stage; thus, resulting in imbalances in supply and demand, product shortages, and bottlenecks for distribution. The uncertainties have far-reaching implications with college and university dining programs navigating unpredictable conditions.

process, and transport food safely.

Michigan State University (MSU) Culinary Services is a self-operated dining program that serves more than 15,000 guests per day. The team has seen the ups and downs of procuring products, managing contracts, leveraging vendor partnerships, and exercising innovation to ensure we can continue supporting the campus community. "Although we knew procurement would be a challenge, it was difficult to gauge the full scope until we began preparing for the fall semester," shared Rebecca Selesky, assistant vice president of MSU Culinary Services. "Once we learned that students were returning to campus, and we would transition from serving hundreds to thousands, it became evident that we needed to revamp our approach."



Our team started with a significant inventory reduction, followed by a rebuild of our supply under different circumstances. The impact on specific food products and packaging has been complex, but the team has successfully adapted to changing conditions and operates with minimal guest impact.

UPS AND DOWNS OF INVENTORY MANAGEMENT

In March 2020, the MSU Food Store's inventory level was valued at around \$1.8 million. After the university suspended in-person classes and many students returned home, the average number of meals served per day went from 50,000 to less than 1,000. So, the team responded quickly, refocusing on cost avoidance and implementing various strategies to manage excess inventory. This change included vendor order adjustments, meal donations, and collaborating with chefs to monitor product dating and modify menus weekly. Departmental efforts to develop a unique process for inventory control allowed the team to significantly reduce the value to around \$500,000 by June 2021.

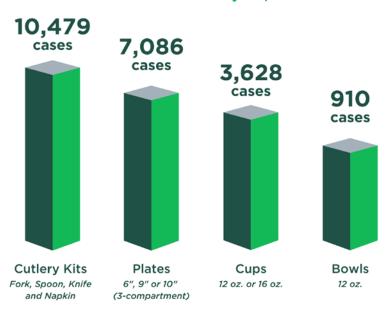
As we approached fall semester 2021 and university plans unfolded, the focus shifted to rebuilding inventory to support nearly 15,000 students living on campus. MSU felt the effects of industry-wide disruptions as the supply chain transitioned primarily to retail distribution. The sudden reopening of restaurants, schools, and other areas relying on foodservice also created rapid product competition. Additionally, federal unemployment benefits caused a vast labor reduction and slow workforce reentry.

Popular products and various raw materials were increasingly difficult to obtain, and animal processing significantly slowed due to pandemic restrictions and government mandates. The procurement and warehouse teams, operational managers, chefs, and dietitian collaborated to address ongoing shortages—particularly for disposables, proteins, and certain produce items. "Backup plans and innovative concepts were critical because the supply chain has been very unreliable," expressed Kurt Kwiatkowski, senior executive chef. "Our team shifted the focus of menu offerings and moved away from customization due to a lack of staff."

Decreased labor levels were not uncommon across industries, which caused U.S. delivery ports to have a backlog of container ships waiting to be unloaded. As a result, organizations had to sacrifice production potential.

DISPOSABLES USAGE

as of February 23, 2022



SOURCING DISPOSABLES

Given the decline in available labor and MSU's inability to adequately staff dish rooms, our eight all-you-care-to-eat locations have served on single-use ware for the 2021-22 academic year. "Feeding more than 15,000 per day requires an immense supply of disposables," said Denise Gerst, senior purchasing agent. "In addition, we added mobile ordering and transitioned two dining halls to a new Grab & Go concept, which both require unique products and packaging."

Mobile ordering significantly increased at the start of the spring semester, and we're currently fulfilling an average of 800 orders per day. In addition, operations in Holden and Holmes halls that offer Grab & Go meals serve an average of 1,800 customers per day. Beyond the decline in production due to labor conditions, certain materials like plastics and paperboard used to produce disposables and packaging have been scarce, resulting in decreased supply. At the same time, health conditions necessitated flexible options for consumers, resulting in a vast increase in the need for disposable containers and packaging.

FINDING FOOD PRODUCTS

Along with disposables, finding food products has been a challenge, including high-demand items like protein and produce. For MSU, chicken breasts and potato products have been the most difficult to source, with scarce availability and escalated pricing.

"Obtaining all specific chicken products presented one of our biggest challenges, especially chicken breasts," recalled Todd Loeffler, procurement coordinator and contract administrator. "We started placing orders of less than a truckload in March 2021 with hopes of building inventory for August."

In a typical year, MSU utilizes one truckload of chicken breast per month and about 100 tons per academic year. Leading up to the fall semester, our vendor shared that they were only able to secure a fraction of the quantity needed. In addition to focusing on smaller order quantities in higher frequency, the procurement team sourced alternate chicken products and proteins for use in menus. In the long-term, the alternate items cost 30 to 40 percent less than chicken breasts, saving money for this product category.

Extreme heat in the pacific northwest in summer 2021 impacted potato crops and created shortages. This area is the primary U.S. growing region for potatoes, so problems were widespread and impacted an array of items, like tater tots, triangle hash browns, and French fries. MSU generally uses up to 10,000 pounds of crinkle-cut fries weekly, and maintaining our inventory has been extremely difficult. To cover the needed volume, we inventoried up to seven product specifications at one point.

From the perspective of our chefs and dietitian, there are important considerations to make for product substitutions and additions. The similarity of any new products brought in was vital, and items would preferably contain identical or fewer allergens to avoid challenges for guests. On a positive note, the product transitions have allowed dining hall teams to change the menus more frequently. "We have to be continuously more adaptive and base our rotation on available products," Kwiatkowski shared. "Allergens are the primary comparison for substitutions followed by ingredients, cost, and availability."







KEYS TO SUCCESS

Several key factors have been instrumental to our success, including advancing partnerships with vendors, manufacturers and distributors, internal and external communications, consistent ordering, longer lead times, and quickly pivoting as the industry continues to transform.



Vendor Partnerships and Contracts

Collaborating closely with vendors, manufacturers, and distributors has been the most successful approach to handling challenges. MSU Food Stores primarily worked on securing contract extensions with current vendors to limit excessive price increases as a result of the external influences of the pandemic. Existing vendor relationships were instrumental to extensions, particularly as we replenished stock for fall semester 2021 and maintained a strong inventory throughout the school year.

Furthermore, we purchased products from a larger number of manufacturers and distributors. For example, before the pandemic, we primarily worked with two manufacturers and two distributors to source disposables. Currently, we are working with five to six different manufacturers and up to four distributors at a time.

To assist our vendors and ease burdens for everyone involved, MSU changed our ordering and storage processes, providing longer lead times to source products. We also partnered with our primary distributor to park a semi-trailer at our Food Stores facility for storing overflow stock. By consistently placing heavier orders and making that process our new routine, we have been able to keep up with demand.



Customer Communication

The need for customer flexibility has never been more important, so we increased our internal communication about the supply chain and its impact on our operations. Our communications team developed talking points to explain the gravity of our challenges, the various stages of the process, and how each is affected by weather, labor, and shutdowns. In addition, we included the primary areas of focus and tailored messaging for the MSU community. The information was weaved into frequently asked questions on the Eat at State website, shared on social media, and used for email and phone responses.



Internal Connections

Communicating internally and focusing on joint efforts became more significant. For example, when the team reduced inventory levels, department representatives from each area met daily. More recently, constant communication between our procurement team and departments across campus helped us develop a successful system that allowed us to quickly identify comparable products. "One of our main strengths is our ability to band together in times of critical need," Selesky expressed. "Pivoting swiftly and facing the challenges that sometimes arise daily will continue to be an essential component of our operations."

While it's apparent that supply chain challenges will persist for a longer timeframe, we're grateful for solid vendor relationships that have been instrumental to decreasing and rebuilding inventory, managing external influences of the pandemic, and carrying out innovative plans. Since the 1960s, our Food Stores operation has shaped solid partnerships with suppliers. The importance of fostering these connections has never been more evident than now.