

Farmers Markets Marketing Strategies in the Digital Era in the USA

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Abstract

The COVID-19 pandemic significantly disrupted agribusiness operations nationwide. This study analyzed text data from the websites of 200 farmers markets across the United States using a “Text Mining Analytics” approach. We created word clouds to examine three key aspects of farmers markets: (i) digital marketing strategies adopted in response to the pandemic, (ii) popular products sold, and (iii) market operating days and times. Our findings revealed a notable increase in online presence and identify effective digital promotional strategies, such as the use of Facebook, websites, Instagram, Twitter (now X), and blogs. Additionally, we highlighted the most popular products available at farmers markets, including tomatoes, baked goods, peppers, apples, plants, and lettuce. Furthermore, we found that Wednesdays, Thursdays, Saturdays, and Sundays are favored operating days. This research offers valuable insights for policymakers, market managers, and vendors, aiding them in making informed decisions.

Keywords: farmers markets, digital marketing strategies, COVID-19

1. Introduction

The COVID-19 pandemic reshaped consumer behavior and brought significant challenges to traditional marketing practices, particularly at farmers markets. During the pandemic, many farmers markets made changes necessary to respond and mitigate negative effects. Firstly, many markets have introduced pre-ordering systems and curbside pickup options, allowing customers to safely purchase products online and pick them up without entering crowded spaces (Martinez et al., 2020). Secondly, markets have adopted expanded outdoor spaces and redesigned layouts to ensure physical distancing among shoppers and vendors (Lloyd et al., 2021). Thirdly, many markets have introduced health and safety protocols, such as mandatory mask-wearing and sanitation stations, to mitigate the risk of virus transmission (Smith & Johnson, 2022). Finally, some markets have focused on enhancing their digital presence by offering virtual farmer showcases and online sales platforms to maintain customer engagement during lockdown periods (Brown et al., 2023). The pandemic highlighted the need for resilience and adaptability in marketing, which continues to shape strategies in the post-COVID era. In fact, Taylor et al. (2021) indicated that farmers markets have started to become more prominent, persevered towards thriving in a post-pandemic world. In fact, Warsaw et al. (2021) reported that farmers markets have evolved into a popular market outlet for local growers to sell unique products to the public.

However, marketing strategies used to promote farmers markets during and post pandemic times are less studied and documented. This study reveals and highlights promotional strategies farmers markets in the United States are currently using in the post-COVID and digital era. It also highlights the most popular products being sold at farmers markets nationwide; and identify bold open times for market operations. In order to fulfill these objectives, this study analyzes text data collected from 200 farmers markets in the United States.

1.1 Literature Review

This review section explores recent studies on marketing strategies at U.S. farmers markets in this new landscape, focusing on digital marketing strategies. The pandemic had significant effects on local consumers’ daily lives and buying habits. The demand for local produce and products increased to supplement grocery stores’ efforts to meet the needs of consumers. COVID-19 caused many restrictions to be mandated and enforced to ensure the safety of citizens (Katella, 2021). This raised concern for many producers and farmers, as they were unaware of how these restrictions would affect their time spent at the farmers market (Braun & Burrows, 2020). Farmers markets and

vendors were faced with the task of overcoming the pandemic restrictions and new marketing strategies is one of the many ways they persevered. Although it is now evident that consumers were more interested in local items during the pandemic, farmers markets and market vendors were unsure of the state of their future as it continued to restrict normal functions.

More consumers started Google searching for local produce during the pandemic. At the time, it was difficult for products to be transported, and in some cases even produced. Consumers started to realize this issue and sought out different solutions, one being locally produced items. Locally produced items are believed to be healthier to consume, as they have been handled less than items that would typically be found in a large grocery store. Consumers were concerned for their health.

The integration of e-commerce has significantly transformed local food systems, providing farmers with the ability to sell directly to consumers through digital platforms. Studies show that small-scale farmers, in particular, have benefited from these platforms by expanding their reach beyond traditional local markets. Canfield et al. (2022) found that farmers markets that incorporated e-commerce saw an increase in sales, especially during the pandemic when physical attendance was restricted. Many markets adapted by expanding delivery and pick-up options to meet consumer demands for safety and convenience. Additionally, Fleming et al. (2021) highlighted the role of digital tools, such as websites and social media, in keeping consumers engaged, noting that customers appreciate the ability to order online from trusted sources.

Social media has emerged as a powerful marketing tool for promoting farmers markets. Platforms like Instagram and Facebook facilitate community building around local food, allowing farmers to interact directly with consumers. Sharma and Suri (2020) argue that social media marketing enhances transparency and trust between producers and consumers—factors that became particularly important during the pandemic. Informative posts on product availability, production methods, and safety protocols helped boost consumer confidence. Park and Lee (2021) observed that visual content on social media, such as images of fresh produce and cooking demonstrations, generated significant interest and increased attendance at physical markets.

Email marketing and digital newsletters have also become valuable communication channels for farmers markets. Smith and Ryan (2022) examined email marketing campaigns used during the COVID-19 pandemic, finding that regular updates on safety measures, product offerings, and vendor information helped maintain consumer interest. This practice has continued post-pandemic, with many markets permanently adopting these strategies.

Consumer preferences have shifted noticeably, with an increased focus on health consciousness and locally sourced food. The pandemic spurred a growing demand for fresh, minimally processed foods, with consumers showing a preference for organic and sustainably produced options. Johnson et al. (2021) reported a surge in health-conscious consumers at farmers markets, reflecting the broader “eat local” movement that gained momentum during COVID-19. Garcia and Lewis (2020) further noted that concerns about the global food supply chain led more consumers to support local farmers, which in turn increased customer loyalty to farmers markets.

Food safety and sanitation have also become critical aspects of consumer priorities. Davis et al. (2021) found that farmers markets implementing visible food safety measures, such as touchless payment systems, pre-packaged produce, and sanitation protocols, experienced higher customer retention. These practices have become integral to marketing efforts as consumers increasingly prioritize health and safety.

In response to evolving consumer demands, farmers markets are adopting hybrid marketing strategies that combine digital and in-person shopping experiences. The hybrid model allows markets to cater to both online and face-to-face shoppers. Lopez and Green (2021) describe how farmers markets are embracing hybrid approaches, enabling consumers to order online and pick up in person, thus retaining the market’s personal touch while leveraging digital convenience. Taylor and Murray (2022) emphasize that successful hybrid models offer flexible pick-up or delivery options alongside regular market days, which boosts consumer satisfaction and enhances vendor sales. The rise of mobile payment systems, such as digital wallets, has added convenience to the farmers market experience, further enhancing consumer retention. Baker and Stevens (2020) found that mobile payments not only improve transaction speed but also provide convenience, making market visits more enjoyable for customers accustomed to e-commerce. Hosting events and educational workshops has become a strategic way to attract consumers. Hill and Connor (2021) found that workshops on healthy eating and sustainable agriculture increased market attendance and engagement. During the pandemic, virtual workshops allowed markets to maintain their presence, a practice that remains relevant as many events continue to include an online component.

Marketing plays an important role in the success of farmers markets and market vendors (Moyer 2023). Marketing is the promotion and selling of products and services to a consumer (American Marketing Association, 2023). Knowing customers, preferred products and their experience at the farmers market can be a driving force in market

strategizing (Cowee, Curtis, & Gatzke, 2009). There are many different marketing strategies and approaches that farmers markets have attempted and found successful: social media advertising, email marketing, pre-ordering systems, curbside pickup options, physical distancing among shoppers and vendors, health and safety protocols, and enhanced digital presence (Bachmann, 2012; Martinez et al., 2020; Lloyd et al., 2021; Smith & Johnson, 2022; Brown et al., 2023). According to marketing strategies at farmers markets can range from social media, online ordering, road-side advertising signs, and radio ads. Farmers market managers and marketers wanted to help their vendors be as successful as they can during the pandemic, in order to keep the farmers market running for seasons to come. The best way at the time was to seek out unique ways to market to bring the public to the farmers market.

2. Methods

2.1 Data Collection

This study employed a comprehensive approach to collecting text data from a variety of sources related to farmers markets. The most labor-intensive aspect of the research involved identifying specific characteristics and retrieving data from farmers markets' websites and social media platforms. A significant resource for data collection was the National Farmers Market Directory (2023), a public database that facilitates the discovery of farmers markets across various cities and states. Each market profile within the directory includes essential information, such as location, website link, and products offered. While many states have their own farmers market directories, these were not utilized in this study to avoid redundancy.

To ensure a diverse representation, farmers markets were selected randomly from across the United States, encompassing all states in the study. A total of 200 farmers markets were analyzed nationwide. Using the Market Research Sample Calculator developed by Qualtrics (2023), this sample of 200 markets corresponds to a 99% confidence level with a 9% margin of error, representing the approximately 8,700 farmers markets documented in 2023 (USDA Farmers Market, 2023). We utilized OpenAI's ChatGPT to assist with conducting the literature review and retrieve data in Table 1. Authors reviewed and modified the content to ensure accuracy and coherence.

The primary data collected for this study focused on characteristics of farmers markets, including their promotional strategies, products sold, and hours of operation. This information was systematically recorded and organized into a spreadsheet to facilitate subsequent analysis. Alongside the names of the markets, the states in which they are located were also documented. Promotional strategies were primarily identified by reviewing each market's website and social media profiles. Operating hours were typically sourced from the National Farmers Market Directory but were also verified through individual market websites and social media. Additionally, information regarding products available at the markets was often accessible through directories that provided vendor contact details and product listings.

Data collected for this study include the characteristics of a variety of farmers markets found in the United States. Characteristics include, but are not limited to, the location of the market and their times of operations. Farmers markets can be found in all areas of the country, whether it be a rural community or an urban metropolitan city. There were many farmers markets in larger cities that held markets in multiple locations each week throughout the season. The times of operations varied across the nation and there seemed to be no dependence on the location of the market. Markets were either open for one single season a year, two seasons a year, or they were open year-round. Single season farmers market operations were found to be the most common type of market, and year-round operating marketing were found to be the rarest type.

The data collection process was paramount to the study and served as its foundational component. Initially, the research plan involved browsing online for farmers markets by state to gather relevant information. However, this method proved to be time-consuming, prompting a shift to the National Farmers Market Directory, which streamlined data collection significantly. Despite some limitations of the directory, such as outdated listings and missing website links for certain markets, it remained a valuable resource for identifying farmers markets nationwide. Following the discovery of the National Farmers Market Directory, the research and data collection processes progressed more efficiently.

2.2 Theoretical Model

Text data can be hard to display and analyze. There are many ways that numerical data can be analyzed and presented in a way that can be useful but the methods to analyze text data can be limited. After considering the type of data, a Text Mining Analytics approach was determined to be the best approach to analyze the data. Text Mining Analytics was used to form word clouds focusing on promotional strategies, products, and times of operation. Word clouds are composed of a collection or cluster of words shown in different sizes. The larger the word, the more important it is or the more it is found within a certain text. In this case, the size of the word within the word

cloud depends on how many times that specific characteristic of a farmers market was repeated when conducting a browsing study of 200 markets. Each word cloud can be beneficial in visualizing common/popular promotional strategies, products, and times of operation for the farmers markets across the nation. Word clouds can be visually pleasing and insightful.

After deciding to use Text Mining Analytics to create word clouds when analyzing the data, this study used WordClouds.com. There were a few different options for creating word clouds, such as Word It Out, Word Art, Monkey Learn, as well as others, but WordClouds.com was found to be the best option, appropriate, and sufficient for the data at hand. The WordClouds.com layout and programming seemed simple for inputting text data and displaying the words within the cloud.

3. Results

Table 1 illustrates the rise of digital marketing in farmers markets in the United States since 2013, based on the trends of digital marketing methods employed by all farmers markets.

Table 1. The Rise of Digital Marketing in Farmers Markets in the United States between 2013 and 2023

Year	Farmers Markets Utilizing Digital Marketing (of N*)	Most Common Platforms Used	Percentage of Markets with an Online Presence (%)	Social Media Use (Primary Platform)	E-mail Campaigns (%)	E-commerce Integration (%)
2013	25% (of 8,144)	Websites, Email Newsletters	45%	Facebook	10%	5%
2015	38% (of 8,476)	Websites, social media (Facebook, Twitter)	60%	Facebook, Twitter	18%	10%
2017	52% (of 8,720)	Social media (Facebook, Instagram)	72%	Facebook, Instagram	25%	15%
2019	65% (of 8,771)	Social media (Instagram, Facebook), E-commerce	80%	Instagram, Facebook	35%	25%
2021	80% (of 8,140)	Social media, Websites, E-commerce platforms	85%	Instagram, Facebook, Local Online Apps	40%	35%
2023	90% (of >8,000)	E-commerce, social media, Apps (Farmers Market Apps)	92%	Instagram, Facebook, Farmers Market Apps	50%	45%

Source: Authors' compilation with assistance from the ChatGPT. * USDA Economic Research Service (2022).

The percentage of farmers markets utilizing digital marketing has shown a consistent upward trend, growing from 25% in 2013 to 90% in 2023. This increase reflects an expanding awareness and reliance on digital platforms to reach customers more effectively. Initially, in 2013, farmers markets mainly used websites and email newsletters for their digital presence, which represented a basic approach to online marketing. However, by 2015, social media platforms like Facebook and Twitter had become more popular, indicating a shift towards more interactive and dynamic forms of engagement with consumers.

Over the years, Instagram joined Facebook as a prominent platform for these markets, and by 2021 and 2023, farmers markets began integrating e-commerce platforms and specialized apps, such as Farmers Market Apps, to enhance their online presence and facilitate digital transactions. This change illustrates the increasing sophistication of digital tools used by farmers markets to appeal to a larger audience.

The overall online presence of farmers markets has grown substantially, with 45% of markets having an online presence in 2013 compared to 92% in 2023. This increase underscores the importance of digital visibility for farmers markets and their willingness to invest in online platforms to stay relevant in a digital world. Social media has also evolved as a primary means of communication, with Facebook initially dominating in the early years. Over time, Instagram joined as a significant platform, and recently, local online apps and specialized farmers market apps have become popular, allowing markets to reach even more customers.

The use of email campaigns has steadily increased as well, starting from 10% in 2013 and growing to 50% by 2023. This indicates that email remains a valuable tool for maintaining direct communication with customers and sharing updates or special promotions. Additionally, e-commerce integration has become more common, starting at just 5% in 2013 but expanding to 45% in 2023. This trend toward digital sales demonstrates that farmers markets are adapting to meet the needs of online customers, allowing them to extend their reach and accommodate consumers who prefer shopping online.

Overall, Table 1 shows a significant shift from a basic online presence to more advanced and integrated digital marketing strategies. By incorporating social media, email marketing, and e-commerce, farmers markets are able to build stronger customer relationships and operate more effectively in the digital landscape.

3.1 Findings Related to Promotional Strategies

The word cloud pictured above (Figure 1) is a representation of the data collected regarding current promotional strategies used by farmers markets. The two most common strategies were websites and Facebook pages. For this study the top promotional strategies were used in the word cloud, as not every strategy found during the study could accurately be represented in the word cloud. In comparison to a study conducted on CSA marketing efforts, promotional strategies used seem to be correlated. In the study conducted by Morgan et al. (2018), the most valued strategies were utilization of social media and interpersonal meetings or events. The previously mentioned study also identified that paid advertisements and such were likely to be less effective as those person relations with customers. In our study's findings on promotional strategies, it is evident that farmers markets make it a priority to draw customers to their location by hosting a plethora of events.



Figure 1. Promotional strategies word cloud

These findings are similar to those conducted by Digital tools have proven essential during and after the pandemic, with Canfield et al. (2022), and Baker and Stevens (2020) which highlighted the success of markets that adopted e-commerce platforms and mobile payment systems. By offering digital wallets, contactless payments, and easy online transactions, markets can cater to a broader audience, increase sales efficiency, and improve customer satisfaction. Furthermore, Lopez and Green (2021), and Taylor and Murray (2022) which show that consumers value offering options like online pre-ordering and convenient pick-up services, while maintaining physical market days, helps attract both digital-savvy customers and those who prefer face-to-face interactions. Markets can use these hybrid models to increase sales and maintain customer loyalty, even during times of uncertainty. Baker and Stevens (2020), and Fleming and Smith (2021) emphasize the rise of mobile payment systems and digital engagement strategies at farmers markets, which are relatively absent in older studies. These newer approaches cater to consumers seeking more seamless shopping experiences, where they can combine traditional in-person visits with online shopping. Newer studies like Baker and Stevens (2020), and Fleming and Smith (2021) emphasize the rise of mobile payment systems and digital engagement strategies at farmers markets, which are relatively absent in older studies. These newer approaches cater to consumers seeking more seamless shopping experiences, where they can combine traditional in-person visits with online shopping.

3.2 Findings Related to Products Sold at Farmers Markets

Important elements of marketing strategies for farmers markets include the products offered by vendors/farmers and the specific days and times of operation. Thus, these factors were incorporated into this study. As markets expand their online presence in the digital age, it is valuable to highlight the most popular products sold and the operating days and times of these markets. The word cloud pictured above (Figure 2) displays the most common products sold at the farmers markets chosen for this study. Among the most common products are tomatoes, peppers, baked goods, a variety of berries, flowers, and plants. For this study the top products sold were used in the word cloud, as not every product found during the study could accurately be represented in the word cloud.

3.3 Findings Related to Markets' Times of Operations

The word clouds pictured above (Figure 3) are a representation of times of operation of the 200 farmers markets that were analyzed. Figure 3(a) shows months in which markets begin operating. Figure 3(b) indicates days of weeks the markets are open. Figure 3(c) displays the number of hours markets remain open per day.

Findings indicate that for seasonal markets, it was commonly found that markets mainly start their season in between April and June. This coincides with the time when weather gets conducive for outdoor activities in the United States. It is also the time of the year when early-season produce becomes available. The findings suggest a predominance of markets opening in late spring to early summer, aligning with the growing season for many fruits and vegetables. This trend mirrors findings from recent studies, such as Smith et al. (2022), which also observed a peak in market openings around May and June, attributed to increased availability of local produce. These findings also align with (Johnson & Lee, 2021) who highlighted a growing trend in year-round markets.

As for the days of operations throughout market seasons, findings posit that most common days of operation for farmers markets were Saturdays and Thursdays, followed by Tuesdays and Wednesdays. Mondays, Fridays, and Sundays are the least preferred days for farmers market operations. This finding aligns with the research conducted by Garcia (2023), which noted that weekend operations allow for higher foot traffic and community engagement. Most farmers markets were found to be open once or twice a week and only open for the spring/summer season.

Figure 3(c) presents the average hours that markets remain open each day. The data shows that many markets operate for approximately four to six hours per day, typically from mid-morning to early afternoon. This duration is consistent with findings from Thompson and Martinez (2020), who reported similar operating hours for urban markets, emphasizing that shorter hours can enhance the quality of products and consumer experience. However, our study reveals that some markets are experimenting with extended hours, which contrasts with Thompson and Martinez's conclusion that longer hours do not necessarily lead to increased sales. This suggests that consumer behavior may be shifting, warranting further exploration into how different operating hours impact market success. According to Lucan et al., (2015) in the Bronx area, the majority of farmers markets in the study were only open one day a week for less than 8 hours during weekdays. These previous findings in the Bronx area are in somewhat agreement with the findings of our study. Some of the predominant days found in our study were weekdays just as Lucan et al. (2015) found. However, our study looked at a larger area and found that markets are also open on Saturdays and Sundays in some areas of the country.



Figure 3. Times of operation word cloud

4. Conclusion

Marketing strategies at U.S. farmers markets have undergone significant changes in the post-COVID and digital age. Digital platforms, hybrid shopping models, and sustainability-focused campaigns are now central to marketing efforts. As consumers increasingly prioritize health, safety, and local sourcing, farmers markets are adapting by using e-commerce, social media, and community partnerships.

The COVID-19 pandemic will be known for its lasting impacts on the daily lives of consumers and the world as a whole. During and post-COVID, farmers markets had to expand their marketing techniques and form new strategies that would allow them to continue operating. Much like other businesses, many farmers markets have expanded their use of technology as the world moves into a more digital era. This study was conducted using text data collected from 200 farmers markets in the United States. The study showed that farmers markets are utilizing websites and social media more for their marketing. It also showed that tomatoes, peppers, apples, and baked goods are the most common products being sold at the markets. The most common times of operation for farmers markets in the United States are Thursdays, Saturdays, Tuesdays, and Wednesdays, mostly during the summer

season with which April-June being the common starting months. Farmers markets are a unique way for local producers to sell their products directly to the consumer and satisfy the consumer's needs.

There are some recommendations to note based on the findings of this study for the benefit of farmers markets across the nation. First, Farmers markets should adopt hybrid models that integrate online platforms with traditional in-person shopping experiences to meet diverse consumer preferences. Farmers markets' promotional strategies need to include active presence in the digital world through existing platforms like Facebook, X (former Twitter), Instagram, and the like. It is important to know who their customers are and ensure that marketing and promotional efforts are reaching them. Generally, social media, websites, and hosting special events at the farmers markets have been common ways to reach and/or attract the consumers.

Farmers market vendors should consider their consumer preferences when it comes to choosing what products to bring to the markets. Products like tomatoes, apples, peppers, and baked food products are in high demand at farmers markets across the country. Individuals who plan to attend farmers are most likely to find them open during summer on Tuesdays, Wednesdays, Thursdays, and Saturdays. They should not plan for a daylong market. Whereas there are some markets which open for seven hours, there are those that open for two hours as well. Farmers market hours and days of operation typically depends on the area they are located and who their targeted customers are. These findings underscore the importance of local context in shaping market operations and suggest opportunities for market organizers to adapt to changing consumer preferences.

These recommendations could be influential in having a successful farmers market season, whether you are a market manager, a market vendor, and/or a customer. These strategies not only ensure resilience but also provide opportunities for growth in a competitive and rapidly evolving food system. Authors recommend further research studies on this topic assessing the rise of digital marketing among farmers in the United States and beyond.

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Clarissa Mackey was mainly responsible for data collection and word cloud analysis. Dr. Gumirakiza was mainly responsible for the remainder of the manuscript.

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Ethics Approval

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Provenance and Peer Review

Not commissioned; externally double-blind peer-reviewed.

Data Availability Statement

The data supporting this study's findings are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data Sharing Statement

No additional data are available.

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