

Facebook as a Marketing Tool: A Chance for Local Food Producers?

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Abstract: Local family farmers doing business in the same place for centuries and doing business through social media are seemingly incompatible. However, it is a fact that social networks, especially Facebook, are currently changing established social practices. The present study aims to identify patterns of entrepreneurial behavior of local farmers and the opportunities offered by Facebook sales. The research sample includes ten farms selected on the basis of the number of Facebook followers, Facebook page activities and own food production. Selected farms are based in Poland and the Czech Republic and are engaged in plant and animal production. The study provided new insights into the use of Facebook as a marketing tool. Specifically, it dealt with the frequency and content of local producers' marketing communication, the sales channels used, and the nature of the social relationship between farmers and local customers.

Keywords: social media; Facebook; business model; marketing; local food production

JEL Classification: Q13; A14; M31

1. Introduction

Nowadays, business marketing activities are increasingly moving on the Internet. Digital transformation has a strong influence on the economy, marketing as well as consumer behaviors in all industries, including family farmers. Kotler et al. (2017) indicate that changes in technology and consumer behavior led to the transformation from traditional marketing into digital marketing – Marketing 4.0.

The new marketing foundations are based on social networks, circular economy, the economy of sharing as well as content marketing. Moreover, the mobile internet access has changed market behavior, enabling social interactions, comparing and giving opinions on purchases from anywhere in the world. Social media are a tool supporting this attitude which has a huge impact on consumers' purchasing decisions. Social media removes geographic and demographic barriers, enabling people to connect and communicate, while companies can act innovatively through this collaboration (Kotler et al., 2017). In addition, the power of social media is underlined by its popularity in society.

Globally, more than half of the world population is an active social media user (4.20 billion people) with a constantly increasing trend (+13.2%, Jan. 2021 vs. Jan. 2020) (Kemp, 2021). That is why, not only consumers can benefit from the use of social media, but most of all, enterprises may build their brand easily and use tools to profit and grow in the industry (Sarkar & Ghosal, 2018).

2. Use of Social Media in Local Food Systems

Social media have become a communication tool supporting and maintaining relations with customers (Karjaluoto et al., 2015). Popularity and accessibility of Facebook with 2,740 billion active users (Kemp, 2021) makes this social network a good opportunity for increasing exposure to targeted customers (Sarkar & Ghosal, 2018). Moreover, according Brink (2017) the social platforms such as Facebook are less expensive than traditional marketing processes. These factors make Facebook an attractive tool for micro as well as small and medium-sized enterprises (SMEs).

SMEs, compared to large companies, have limited resources resulting in obstacles to creating marketing campaigns. Thus, Facebook and other social media tools are an opportunity for SMEs to make their businesses visible and promote relationships with customers, which may consequently influence sales and revenues. One sector that is beneficial from the use of social media is food production performing locally in short supply chains. Local food systems (LFS) are trending in agribusiness and gaining recently in popularity (Bareja-Wawryszak, 2020a).

LFS can be considered as systems identified with the production region, striving to optimize the economic results achieved by limited intermediaries in food chains, systems using sustainable production and distribution methods, and supporting direct social relations (Feenstra, 1997). The growing popularity of LFS is associated with a crisis of confidence in the mass agri-food industry, and concerns about the use of genetic modification or food preservatives. The pandemic and difficulties in food supply had also a significant impact on the development of LFS (Bareja-Wawryszak, 2020b). Moreover, public awareness of the natural environment and care for its sustainability is increasing, which contradicts the industrial approach to the agribusiness sector (Blouin et al., 2009). LFS are regarded as community-driven where social direct relations play a crucial role. Thus, the usefulness and possibilities of Facebook match the needs of local producers' performance, making Facebook an appropriate tool for marketing and selling processes.

The above literary background introduces the purpose of the presented article. This is to assess the potential of using Facebook as a marketing tool for local food producers. More precisely, we aim, to illustrate the business behavior of local farmers on Facebook based on presented case studies. Namely to answer questions: For what sales purposes this social network is used? What content is communicated on farmers Facebook pages? How customers react to this communication?

3. Methodology

The study is based on the analysis of online environment, specifically presentations of local food producers on Facebook social network. This kind of analysis conducted in online environment is a part of so-called Internet mediated research (Hewson, 2008). At the same time, social media offer widely accessible, up-to-date, and available digital information (Lai & To, 2015). When analyzing content, we have used methodology close to Lai and To (2015) grounded theory approach and with its hybrid nature we were able quantitatively analyze qualitative social media content as business practices, farmer's opinions or responses of local customers. Subsequently, we were able to identify main behavior patterns in business communication of local producers.

3.1. Research Sample

Research study focuses on local food producers located in the Czech Republic and Poland to illustrate use of Facebook as a business channel. The following restrictive conditions were set for the selection in the sample: (1) the producers are engaged in agricultural production, (2) with functional Facebook pages and (3) the number of followers of the page is more than 250, (4) the page owners take an active approach to site administration. When selecting local producers for analysis the keyword farm (i.e., “gospodarstwo” in Polish, and “farma” in Czech language) was used.

Table 1. The main characteristics of selected local farms Facebook pages

Farm name / Facebook page name (country)	N	Business Scope	Number of Followers	Review score / number	On-page Shopping
Cud Malina, Gospodarstwo ekologiczne / Bioowoce (PL)	72	Organic fruits, production of juices and syrups	1,461	5.0 / 12	Yes
Doktor Miodek Gospodarstwo Pszczelarskie / DoktorMiodek (PL)	60	Production and distribution of natural honey	2,251	5.0 / 26	Yes
Tradycje Natury – Eko Gospodarstwo Ogrodnicze / Tradycje Natury (PL)	42	Organic production of milk, fruit, and vegetables. Online selling and transportation.	1,382	5.0 / 7	Yes
Malinowy Chrusniak – Gospodarstwo Ekologiczne / Malinowy Chrusniak (PL)	40	Organic cheese production and sales	4,253	0 / 0	Yes
Gospodarstwo Rolne S_49 / S49wiejskijaja (PL)	35	Free-range laying hens, fresh, tasty and healthy eggs, no chemicals or GMOs.	256	5.0 / 6	Yes
Farma Polák / ceskebrambory.cz (CZ)	11	Vegetable production, mainly potatoes, onion, cabbage, and cauliflower	1,100	n/a	No
Rodinná farma Aujeský / farmaaujesky (CZ)	45	Fruit and vegetables, door-to-door delivery of boxes with fresh products	11,817	4.9 / 54	No
Farma Matějka / farma-matejka-prodej-mleka-ze-dvora (CZ)	39	Production and sales of milk and beef meat	736	5.0 / 4	No
Farma SOKOL / farmasokolzrampuse (CZ)	83	Meat and milk products	7,861	4.7 / 47	Yes
Farma Pod Zvičinou / kozi.farma.uhlejov	51	Goat milk and cheese	652	5.0 / 14	Yes

3.2. Data Set

The data set contained all posts published by the sampled farms in the period from January 1, 2021 to January 10, 2022. The data from the Facebook pages were collected with use of the script developed in Python programming language. The data includes the ID of the published post, the date of publication, the text of the post, the number of reactions

(reaction types as like, love, ha-ha, wow, angry, and sad), the number of comments and the number of shares. The data were collected during a ten-day period in January 2022.

The data set comprised 472 posts published by local producers, 249 on Polish side and 229. The total posts included 23,418 words and 133,742 characters (without spaces).

3.3. Data Processing

The data processing was conducted in MS Excel worksheet. In our study, we used the metrics of absolute engagement; relative engagement and engagement rate. The absolute engagement was expressed as a simple sum of reactions, comments and shares from all posts published in the examined period; the relative engagement metric as an absolute engagement in relation to the number of published posts, and the engagement rate as the ratio of relative engagement linked to the number of farm Facebook page followers.

In this study, we have used abovementioned metric because several reasons: at first, the overall publishing activity of farms; at second, the absolute engagement of page visitors is relatively low; and at third, the algorithm for displaying posts has changed, posts are no longer displayed to all page followers, but only a fraction of them, depending on how active they are with respect to the page. The traditional engagement rate (Bachmann 2019; Bonsón et al., 2015) is calculated as the number of responses (absolute engagement) in relation to the product of published posts and number of page followers.

4. Results

4.1. Characteristics of Polish Farms' Business Communication

Looking at the quantitative results of Polish farms, it is clear that the significant differences between the monitored farms exist. While the absolute engagement at Bioowoce was 1,191 pts., at Tradycje Natura it was only 91 pts. The highest relative engagement was achieved by Malinowy Chrusniak (20.1 points). Detailed results of all Polish farms included in the sample are available in Table 2.

Table 2. The Facebook pages of Polish local producers and their reach to the public

Farm	N	Reactions		Comments		Shares		Engagement		
		Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Rate
Bioowoce	72	924	12.8	117	1.6	150	2.1	1,191	16.5	81.5
Doktor Miodek	60	909	15.1	93	1.6	25	0.4	1,027	17.1	45.6
Tradycje Natury	42	89	2.1	2	0.04	0	0.0	91	2.2	6.6
Malinowy Chrusniak	40	722	18.1	70	1.8	13	0.3	805	20.1	18.9
S49wiejskijaja	35	317	9.1	42	1.2	0	0.0	359	10.3	140.2

Note: ¹ reactions, comments, shares or engagement of the posts published in 2021, ² per post

In addition to engagement, it is also necessary to monitor an engagement rate, i.e. engagement related to the number of followers, expressed as a percentage. Here, the highest engagement rate is achieved by the Polish egg producer S49wiejskijaja. The engagement rate metric is certainly the most effective for measuring the reach of a Facebook page for existing visitors, i.e. the organic reach of your own contributions. In this way, you can also compare Facebook pages with a significantly different number of followers.

For the subsequent qualitative analysis of effective corporate communication, the five posts with high absolute engagement were selected. These posts have been translated and are provided in Table 3.

Table 3. Qualitative analysis of Polish local farms Facebook communication

Farm	Type of post	Extraction from the post text
Doktor Miodek	Competition	<p>WORLD COMPETITION !!! 📺 🍷</p> <p>Ideal presentation at Mikołajki 📺 Set of 4 different modes: large-fashioned mode, grilled mode, lyophilized raspberry mode, lyophilized bean mode - packed in a present box 📺.</p> <p>📺 To take the appropriate action: ☆ like our funpage on facebook ...</p>
Bioowoce		<p>Species of Polish bumblebees. Flower meadows</p> <p>Dear, during the Holy Week, FREE SHIPPING !!!</p> <p>The time is special now, because the upcoming Holy Night Celebration prompts us to take care of the uniqueness of the Christmas breakfast. The time of the pandemic, however, is a time of isolation for at least many of us.</p>
Malinowy Chrusniak	Special offer (free shipping)	<p>So if you do not want to visit crowded places this last week, we decided to prepare the possibility of ordering with free delivery from our online store.</p> <p>There is only one condition, that the purchases amount to a minimum of PLN 100.</p> <p>It is 1.00 after midnight.</p>
Bioowoce	Story documenting job of the farmer and at the same time organic nature of this production	<p>I just came back from spraying bio currants; (... with tansy and horsetail. I sprayed with a beer (fortified Kolmes), provided by my wife, and I'll tell you this:</p> <p>Conventional farmers (those who sprinkle hard chemicals) have it poorly.</p> <p>They splash such hard shit that they can't drink anything because they can twist.</p> <p>I smell a bit from the pickles;), but I'm just finishing the second beer and going to take a bath :)</p> <p>Juices from our organic currants and raspberries at cudmalina.com.pl.</p> <p>🐝 Bee Bee already in our offer 😊 🐝</p> <p>What are these little compact balls? Do you know Do you like Do you use? ♡</p>
Doktor Miodek	Presentation of a new product in the assortment	<p>Bread is nothing but the staple food of bees. Bread is made of pollen, transported to the hive by bees, then mixed with bees' saliva and honey. After being whipped in cells, it undergoes lactic fermentation. Bread is a rich source of: ♡ carbohydrates, ♡ proteins - more than in pollen, ... (cont.) DOKTORMIODEK.PL</p>

Obviously, the abovementioned table indicates that in addition to traditional marketing communication focused on discounts and new product presentations, local producers try to attract their customers by emphasizing the purely organic or healthy origin of their production or directly documenting farm life and the farmer's work.

4.2. Characteristics of Czech Farms' Business Communication

Generally speaking, the quantitative results of Czech farms were very similar to their Polish counterparts. Although the engagement rate was slightly higher for Czech farms, there are also significant differences between individual farms. Two farms – České brambory.cz

(potato farm) and Koží farma Úhlejev (goat farm) gained a higher than 100% engagement rate. Detailed results of Czech farms are available in Table 4.

Table 4. The Facebook pages of Czech local producers and their reach to the public

Farm	N	Reactions		Comments		Shares		Engagement		
		Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Abs. ¹	Rel. ²	Rate
České brambory.cz	11	1,245	113.2	63	5.7	9	0.8	1,317	119.7	119.7
Farma Aujeský	45	5,398	120.0	205	4.6	162	3.6	5,765	128.1	48.8
Farma Matějka – prodej mléka ze dvora	39	374	9.6	19	0.5	2	0.05	395	10.1	53.7
Farma Sokol z Rampuše	83	547	6.6	0.3	1.8	12	0.1	582	7.0	7.4
Koží farma Úhlejev	51	817	16.0	38	0.75	5	0.1	860	16.9	131.9

Note: ¹ reactions, comments, shares or engagement of the posts published in 2021, ² per post

The qualitative content of the posts with the highest interest is illustrated by the examples given in Table 5. Also, in the Czech Republic, local producers emphasize the high quality of their products (“premium honey of the highest quality). At the same time, they focus on the national origin of the products (Czech honey, Czech potatoes) or certification (certified product - fresh goat cheese).

Table 5. Qualitative analysis of Czech local farms Facebook communication

Farm	Type of post	Extraction from the post text
Farma Aujeský	Product offer	<p>🍯 CZECH HONEY 🍯</p> <p>Premium honey of highest quality 🇨🇪🇵🇱</p> <p>Make an order in our e-shop 🇨🇪🇵🇱</p> <p>📄 http://www.farmaaujesky.cz/med/ 🛒</p>
Farma Sokol	Poetry of the farm work	<p>I like such days. When a man can see that some piece of work is done.</p> <p>Even in winter time we have our Czech potatoes 🇨🇪 and onion for you ready. At the moment, we offer these potato varieties: Bernina, Belana, Marabel a Antonie. Also, you can buy other Czech products in our shop cz 🇨🇪🇵🇱🇵🇱🇵🇱🇵🇱🇵🇱🇵🇱 From 1.2. we are open again in these time Mo-Fr 8-16.30 and Sa 8-12.00. We are looking forward to your visit ... 🛒</p>
České brambory.cz	Product offer, opening hours	<p>Hello, we are a farm near Pardubice and we offer the sale of beef from the door. If you are interested, call the listed phone number: 739 293 182. We look forward to Farm Matějka selling milk from the yard</p> <p>Some time ago we had an unconventional afternoon on the farm. And who created this here? Goats, goat cheeses and an amazing photographer. 📷 Take a look with us.</p> <p>And why is that? The LAG commissioned photography of our products and products for its needs. We have a certified product - Fresh goat cheese in whey. So try fresh homemade, natural and you 😊. We have to wait for the most beautiful photos in the company's regional food catalog. We thank them.</p>
Farma Matějka	Product offer, contact details	
Koží farma Úhlejev (goat farm)	New certified product offer (taking pictures for regional food catalogue)	

5. Discussion

The presented study analyzed the communication of local food producers on Facebook. Based on these selected case studies, it was possible to document the frequency and content

of producers' communication, the sales channels used, and the nature of the social relations between farmers and local customers.

5.1. Communication Frequency and Content

The frequency of the posts published was relatively low for the examined farms. On average, the farmers published approximately one post per week. It can therefore be concluded that the Facebook page works for farmers either as a supplement or replacement for their website. Such approach can be summarized by words: When I am on Facebook I am available online so everyone can find more information about me. My main business communication with customers but still takes place live (and offline) with people I know personally.

In terms of content, the contributions focused on traditional marketing communication, i.e., emphasizing product qualities, price advantages or distribution methods. At the same time, however, they emphasized their organic or national origin, the hard work of the farmer or the interconnection of agricultural products with beautiful nature. From a formal point of view, it was found that the communication of selected companies was at a relatively high level, emoticons were used, attractive infographics were created and professional photos of local products were published.

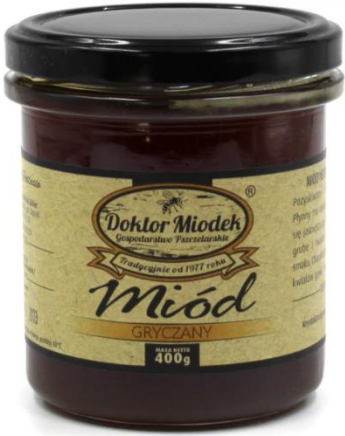
5.2. Selling/Distribution Channels

Facebook presentations of local food producers included detailed information about the location of the farm, contact details, redirection to the producer's website or the direct use of the Facebook selling platform (see Figure 1). In this way, local producers give customers and the possibility not only to shop online, but also to possess a content about the producer, distribution channels and products itself. Thus, Facebook may also perform the function of information point and first interaction step between consumer and producer.

5.3. Formation of Social Relationships, Customer Feedback

Facebook as such is a social network, which means that it primarily serves to establish social contacts. Therefore, it can be assumed that the presence of local producers on Facebook will also be the basis for forming social relationships with customers. However, the results of the study do not meet this assumption. Overall, the number of customer comments was very low and there was almost no social interaction. On the other hand, customers provide some feedback to farmers. The study showed that the comments below the posts can be divided into two groups. First group comments concern availability of particular products, distribution channels or questions about production techniques. While second group of comments, admire the product, farm or other post content.

Doktor Miodek Gospodarstwo Pszczelarskie Wszechny produkty Sledovat 🔍 ☰



Miód nektarowy Gryczany 400 G
 20 zł · Doktor Miodek Gospodarstwo Pszczelarskie Jakość od 1977 roku.

Zobrazit produkt

Další zboží z tohoto obchodu [Zobrazit vše](#)

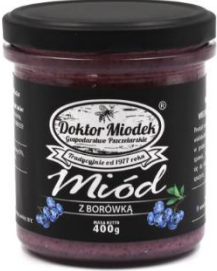

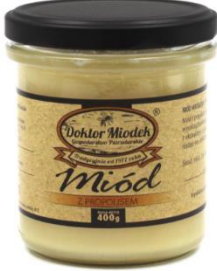

			
Miód z borówką 400g 25,00 zł	Miód z maliną 400g 25,00 zł	Miód z propolisem 400g 20,00 zł	Zestaw Świąteczny nr. 3 110,00 zł

Figure 1. Online shopping platform on Facebook: Doktor Miodek farm

6. Conclusion and Implications

Facebook represents a good chance for local food producers not only to make their products visible but also to distribute them more easily to their customers. At the same time, it is a valuable source of information about local needs for local farmers, not only in relation to the required product, but also due to the method of distribution. At the same time, Facebook is also a cheap and easy-to-use platform. This field of research would certainly deserve more attention, both in view of the higher sample of companies surveyed and the focus on certain specific aspects of small business. This can be, for example, the area of product quality or the long-term sustainability of a small business.

Conflict of interest: none

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