

DIRECT MARKETING OF FARM PRODUCTS VIA THE INTERNET: A SURVEY OF SMALLFARMS.COM MEMBERS

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ABSTRACT

The Internet provides the growing number of small-scale farmers a new platform for marketing their farm products directly to consumers. A web-based survey of Smallfarms.com members, a virtual market place for direct marketers of farm products, was conducted to understand the problems and opportunities that farmers marketing on the Internet currently face. Results show that a majority of the members have found their Internet direct marketing efforts to be at least somewhat successful. Most are very optimistic about future online revenues. However, many also recognize that they lack the skills and time required to implement successful Internet marketing strategies.

INTRODUCTION

A survey by the National Agricultural Statistics Service (NASS) reported almost 30 percent of the U.S. farms had access to the Internet in 1999, as compared to only 13 percent in 1997. Farmers are becoming more computer literate, creating a large economic potential for e-commerce in agriculture. Many commercial farmers now retrieve product information, do comparison-shopping and place orders of chemicals, seeds and fertilizers online. However, Internet access not only allows farmers to manage input supplies, it also permits them to reach their customers more directly. Indeed, the AOL/Roper Cyberstudy finds that more than 56 million Americans now shop online and are diversifying their purchases to home & garden and food items (Klotz, 2000). The increasing popularity of online shopping make direct marketing of farm products via the Internet an attractive alternative to conventional direct marketing methods already used by small farmers.

The USDA (1998) reports that direct marketing from farmers to consumers has increased in the past few years, mostly because more consumers are willing to pay for fresher and organically grown foods as indicated by the studies of Connel et al. (1986), Eastwood et al. (1986) and Rhodus et al. (1994). Consumers perceive that products bought directly from the farm may be more natural and of higher quality, allowing farmers to increase prices (Govindasamy, 1999). Farmer's use several direct marketing techniques, including road-side stands, pick-your-own fields, and farmers' markets. From 1994 to 2000 there was a 64% increase in the number of farmers' markets, with sales to exceed \$1 billion annually (USDA, 2000).

Some farmers have already started direct marketing their products via the Internet. In addition to individual online marketing efforts, a few attempts have been made to create centralized online marketplaces where consumers can contact and buy directly from a larger number of farmers. For example, Smallfarms.com (SF), created by a small farmer in Hawaii, allows direct marketers to list their farm and products on common virtual market place more visible to Internet users. A survey of SF members was conducted to examine some of the

problems and opportunities associated with small-scale farm product direct marketing via the Internet.

METHODOLOGY

A web-based survey methodology was developed since the entire population of Smallfarms.com members was expected to be familiar with the Internet. A web-based survey allowed rapid and efficient gathering of information from the population while avoiding coding and input errors associated with traditional survey methods (Dillman, 2000). Respondents answered the survey question on their own computer, and their answers were automatically stored in a Microsoft Access database file for analysis. Note that the web-survey was implemented using simple Active Server Page (ASP) code available on most free online ASP tutorials (e.g., learnasp.com) and ran on a personal web server available on any Windows NT or Windows 2000 workstation. Hence, the data collection costs were near zero, as compared to a traditional mail survey that could have been expected to cost \$2.00 per person surveyed, and would have required someone to enter the data into a computer for analysis.

The population surveyed consisted of all individuals registered with SF, or about 91 farmers at the time of the study. Initial contact was made by sending an email titled "Help U.S. Agriculture" asking SF farmers to fill a survey located at <http://134.121.87.120/smallfarm/sm1.asp>. Two follow-up emails were sent to non-respondents during the weeks that followed the first contact. Remaining non-respondents were then contacted by phone. This resulted in an overall response rate of 64% or 57 respondents.

RESULTS

The average age of the individual in charge of business decisions and, more specifically, online marketing decisions, is 45 years. Most of these individuals are female (60%) and married (84%). The size of the average farm is 80 acres, with variations in sizes from 300 square-feet to 650 acres. Table 1 reports the percentage of farmers who participated in the survey by product category. Many farmers direct market products in more than one category on the Internet. Most SF farmers offer vegetables and livestock for sell, followed by animal products and herbs. Of all the products marketed by respondents, 50% are described as organic products. The percentage of farmers who successfully sold products via the Internet in each category is reported in parenthesis in table 1. Products processed on-farm were sold most successfully over the Internet, followed by flowers, fibers, seeds, livestock and vegetables, in that order.

MARKETING EFFORTS

The number of SF farmers spending some money on their online marketing efforts has increased since 1997, while the average amount spent decreased (see table 2). This result may be explain by the explosion of the number of e-commerce and online marketing service companies who offered low-cost or free web hosting and site management services during the 1997-2000 period. Initial money invested to develop an Internet presence ranged from nothing to \$3500, with an average of \$249 per farmer.

SF farmers spent an average of \$600 on online direct marketing in 1997. The number of farmers who spent money on online marketing increased from 4 in 1998 to 23 in 1999, and 24 halfway through the year 2000. The largest percentage of the money invested went to web site hosting (56.41%), followed by web site design (31.19%) and finally on-line product advertising

and promotion (15.22%). Seventy-five percent of SF farmers advertised on the Internet, but many also used other advertising platforms, such as magazines, and posters or flyers.

SF farmers use a combination of methods to direct sell and market their products. Surprisingly, only 78% of the smallfarms.com respondents acknowledge they direct market their products on the Internet. This result seem to indicate that some farmers, while listed on SF, do not yet consider the Internet as a serious alternative direct marketing method. Many continue to rely on conventional direct marketing methods, such as roadside stands (52%) and farmers markets (46%). Six percent also maintained a mail order catalogue, and 10% indicated that they marketed part of their production through a cooperative. SF farmers only spent an average of 6.7 hours per month on their Internet direct marketing efforts. Twenty-three respondents spent from 2 to 50 hours per month on advertising, designing and updating their web site.

Although all of the SF farmers have an Internet presence, only half have private farm web sites in addition to their presence on SF. Farmers promoted their farm web sites by registering it with specialized web portals such as smallfarms.com (75%), followed by radio advertising (68%), emails to friends (54%) and emails to existing customers (50%). Less than a third of the farmers with a private web site advertised it in farmers markets. Only one respondent used television advertising. Interestingly, SF farmers did not generally register their private farm web sites with popular search engines such as Yahoo, AltaVista or Go.

Most SF farmers felt their Internet marketing efforts have been successful, with 15.22% saying they have been very successful, and 50% somewhat successful. The main reason for failure was too little time spent on online marketing efforts, followed by limited knowledge or expertise, and too little money allocated to online efforts. Lack of demand and failure to provide the consumer with the option of using a credit card for payment over the web were ranked as the least likely reasons for lack of success.

INTERNET SALES AND CUSTOMER SATISFACTION

Thirty percent of the farmers agreed that their online presence has led to an increase in sales. The reported increases in sales averaged an impressive 20 percent. No SF farmers reported any sales increase in 1997, and only one individual reported sales revenue from the Internet (\$100) in 1998. Five SF farmers reported online revenues ranging from \$50 to \$6000 in 1999, for an average of \$1770. Average online revenue had grown by 116% to \$3,289 by the middle of 2000. While each year shows increase in online sales revenue, the number of SF farmers reporting online revenues from 1999 to 2000 did not increase, which suggests that only a small group has found successful techniques to increase sales revenue via the Internet. Some SF farmers may also not have known or been reluctant to release online sales figures.

Of the farmers that are registered with Smallfarms.com, 30% acknowledge that they have Internet customers. Twenty-five percent of the SF respondents acknowledge that their customers are within 100 miles of their farm. Many SF farmers also report having customers throughout their state (22%) or throughout the U.S. (34%), and almost 20% say they have international customers. However, many SF farmers do not ship and require self-pickup of orders, while 33% self-deliver orders locally. Fifty-seven percent also use shipping companies such as the U.S. Postal Service (31%) and either Federal Express or UPS for shipping (26%).

Only 20% feel that their online marketing efforts has increased overall customer satisfaction. An additional 60% do not know if there has been an effect on customer satisfaction, whereas 20% feel that their Internet presence has no influence on customer satisfaction.

SUCCESS FACTORS

Online Direct Marketing success was defined as increase in sales revenue. While regression analysis did not yield any significant relationships, non-parametric cross-tabulation tests indicated that positive relationships existed between success and (1) size of the farm operation, (2) existence of a private farm web site, and (3) size of the city closest to the farm. Chi-square tests also revealed that farmers who were single (as opposed to married) and those who sold organic products tended to be more successful in online direct marketing. Only existence of a private farm web site and family status were related to increase in sales revenue at the 5% significance level.

CONCLUSION

A majority of SF members felt their Internet marketing efforts have been at least somewhat successful. The follow-up phone interviews conducted with some of the SF respondents showed that SF farmers were optimistic that their online direct marketing efforts would pay off. Many respondents used the Internet as a promotional tool rather than as a way to cut transaction costs and provide customers with a convenient way to order products. While SF farmers did not allocate significant capital to their online marketing efforts, the number who did allocate some capital increased sharply from 1997 to 2000, indicating that the SF farmers believe that direct marketing via the Internet is a potentially profitable activity. The 20% growth in sales reported by some farmers is also very encouraging.

The results suggest that even innovative farmers such as those listed on SF would benefit from some e-commerce and online marketing training. Indeed, many appear not to be fully aware of the numerous free tools and services available to them on the Internet. For example, many did not take advantage of the free registration services offered by most major web portals (e.g., Yahoo) even though most of their potential customers use these sites to search the Internet. The Internet appears to have allowed some SF farmers to enlarge their mostly local customer base into state-wide, nation-wide or, in some cases, international customer bases. However, only half of the farmers provide long-distance shipping services at this time, effectively limiting the potential of Internet direct marketing for their businesses at this time.

It is important to recognize that most of the smallfarms.com members surveyed had only been marketing their products on the Internet for less than a year. In addition, many were not yet able to differentiate sales resulting from online marketing efforts from sales resulting from more conventional direct marketing techniques. Follow-up studies are needed to more accurately measure the success of Internet direct marketing efforts of small-scale farmers in the U.S..

Table 1. Number of SF farmers by product category

Category	Number	Category	Number	Category	Number
Dairy	4 (25%)	Eggs	10 (20%)	Seafood	1 (0%)
Meat	8 (25%)	Grain	2 (0%)	Fiber	11 (36%)
Poultry	8 (25%)	Herbs	11 (18%)	Forest	2 (0%)
Processed	3 (67%)	Vegetables	22 (32%)	Seed	3 (33%)
Livestock	22 (32%)	Fruit	7 (43%)	Flowers	6 (50%)
Animal	14 (14%)	Medicinal	4 (0%)	Other	15 (33%)
Prod.					
Wine	2 (0%)	Nursery	4 (25%)		

Note: the numbers in parenthesis represents the number of SF farmers who successfully sold products on the Internet in each category.

Table 2. Marketing Efforts and Internet Sales

	Average	Std. Dev.			
<u>HOW MUCH MONEY DID YOU SPEND TO DEVELOP AN INTERNET PRESENCE?</u>	\$249	756.46			
	Average	Std. Dev.			
<u>HOW MUCH DID YOU PAY TO REGISTER WITH SMALLFARMS.COM?</u>	\$28	10.59			
	Average	Std. Dev.			
How much money did you allocate to Internet direct marketing efforts in	1997	\$600	565.69		
	1998	\$484	432.90		
	1999	\$334	358.30		
	YTD	\$323	427.29		
	Design	Hosting	Promotion		
What percentage of this money did you use for:	31.19%	56.41%	15.22%		
	Internet	Magazine	Poster		
<u>WHERE HAVE YOU INVESTED MONEY FOR ADVERTISING YOUR PRODUCT?</u>	75.00%	47.50%	50.00%		
	Internet	Market	Mail	Co-op	Roadside
How do you market your products?	78.00%	46.00%	6.00%	10.00%	52.00%
	Very	Somewhat	No		
Do you feel your Internet marketing efforts have been successful	15.22%	50.00%	34.78%		
	Time	Expertise	Money	No Market	Do not take Credit Card
If not successful, rank reasons why (1: most likely reason 6:least likely)	2.2	2.9	3.1	4.6	4.1
	Ave. hrs/mo.	Std. Dev.			
How much time do you spend advertising, designing, updating products online?	6.70	9.86			
	Yes	No			

	30.00%	70.00%	
<u>HAS YOUR INTERNET PRESENCE INCREASED YOUR TOTAL SALES?</u>			
	Sales		
	20.00%		
<u>IF THE INTERNET HAS INCREASED YOUR TOTAL SALES, BY WHAT PERCENT</u>			
		Average	Std. Dev.
What amount of sales revenue have you generated via the Internet in	2000	\$3,829	6276.01

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